

**2023 PERIODIC REVIEW REPORT
AMERICAN THERMOSTAT SITE
NYSDEC SITE NO. 420006**

WORK ASSIGNMENT NO. D009809-01

Prepared for:

**New York State Department of Environmental Conservation
Albany, New York**

Prepared by:

**Earth Environment Engineering and Geology P.C.
(formerly MACTEC Engineering & Geology, P.C.)
Portland, Maine**

Project No. 3616206098

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BOD	Basis of Design
cis-1,2-DCE	cis-1,2-dichloroethene
COC(s)	contaminant(s) of concern
EC(s)	engineering control(s)
EEEG	Earth Environment Engineering and Geology P.C.
EW	bedrock extraction well
GAC	granular activated carbon
gpm	gallon(s) per minute
GSHP	ground/water source heat pump
GWETS	groundwater extraction and treatment system
IC(s)	institutional control(s)
LTM	long-term monitoring
MACTEC	MACTEC Engineering & Geology, P.C.
µg/L	microgram(s) per liter
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
O&M	operation and maintenance
OM&M	operation, maintenance, and monitoring
OU1	Operable Unit 1
OU2	Operable Unit 2
OW	overburden extraction well

GLOSSARY OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

PCE	tetrachloroethene
PLC	programmable logic controller
POET	point of entry treatment
RAO	Remedial Action Objective
ROD	Record of Decision
RSO	Remedial System(s) Optimization
Site	American Thermostat Site
SM	Site Management
SMP	Site Management Plan
SVI	soil vapor intrusion
TCE	trichloroethene
USEPA	United States Environmental Protection Agency
VOC(s)	volatile organic(s) compound

EXECUTIVE SUMMARY

The American Thermostat Site (NYSDEC Site No. 420006; herein referred to as the Site) consists of approximately eight acres located in South Cairo, Town of Catskill, Greene County, New York. The Site has been remediated in accordance with the Record of Decision (ROD) for Operable Unit 1 (potable water supply) (United States Environmental Protection Agency [USEPA], 1988) and Operable Unit 2 (soil, sediment, surface water, groundwater, and building contamination) (USEPA, 1990). The Site includes an active groundwater extraction and treatment system (GWETS). The contaminants of concern are volatile organic compounds including tetrachloroethene (PCE), trichloroethene, 1,2-dichloroethene, and vinyl chloride. Remedial goals outlined in the ROD documents for the Site are instituted to ensure protection of groundwater from site contaminants in soil, restore groundwater to drinking water standards or until a point has been reached at which contaminant concentrations in the groundwater stabilize, and reduce risk to human health and the environment. Current Site Management (SM) requirements for monitoring the performance and effectiveness of the remedial measures completed at the Site consist of operating the GWETS to maintain hydraulic control in the source area, routine inspection, sampling, and reporting.

The GWETS has been operational since 1998, and monitoring results have indicated that achieving groundwater cleanup goals in a reasonable period will not be possible. Exposure pathways resulting from site contaminants being released into the environment have either been eliminated through previous actions (i.e., extension of the public water supply, thermal treatment of shallow contaminated soil, and former residential point of entry treatment systems) or are not complete (i.e., vapor intrusion). However, vapor mitigation within the vacant American Thermostat building should be evaluated if building occupancy resumes. The objective of treating groundwater “until federal and state standards for the organic contaminants have been achieved” is not practicable at this Site. As a result, the Remedial Action Objective for the Site has been redefined to focus on hydraulic containment of the source area, which is an achievable goal that is protective and cost-effective.

Based on information gathered from the 2012 Remedial Systems Optimization investigation and updated conceptual site model, GWETS optimization measures were initiated in 2013 and completed in 2017 to focus on hydraulic control of the bedrock source area and eliminate extraction of water from off-site deep bedrock extraction wells. Optimization measures resulted in increased operational effectiveness of the GWETS and decreased operating costs.

This Periodic Review Report summarizes SM activities completed from January 2021 through December 2023. Based on activities completed in 2023, the site use and activities are in compliance with the Site Management Plan requirements (MACTEC, 2018b), the institutional controls/engineering controls remain in-place, the GWETS is performing as designed, and site controls are effective in protecting the public health and environment.

During the reporting period, the GWETS was shut down on several occasions due to system alarms, modifications, and maintenance periods.

Water level measurements were collected semiannually from 2021 to 2023 to monitor hydraulic control of the source area. Groundwater samples were collected in April 2021, July 2022, and October and November 2023 as part of the long-term monitoring program established for the Site. GWETS performance monitoring occurred monthly. Results from these monitoring programs demonstrate that the system is performing effectively by maintaining an inward hydraulic gradient at the bedrock source area adjacent to the Site.

As expected, the groundwater plume's concentration core continues to respond to the reconfiguration of extraction well pumping, and the residual off-site groundwater contamination appears to be migrating toward Catskill Creek as predicted.

In 2022 an updated Ground Source Heating and Solar Photovoltaic Evaluation (an update to the original document [MACTEC, 2018]) was submitted to the New York State Department of Environmental Conservation summarizing an assessment of energy conservation measures to reduce utility expenditures and greenhouse gas output at the Site (MACTEC, 2022b). The evaluation proposes a ground/water source heat pump (GSHP) system to heat and cool the treatment building utilizing infrastructure already present as part of the GWETS, and a solar photovoltaic system for local electric power generation. Design and implementation of the GSHP system is anticipated in 2024. Design and implementation of the solar photovoltaic system is on hold while the USEPA completes the field portion of a proposed remedial investigation and feasibility study at the Site.

1.0 SITE OVERVIEW

The American Thermostat site (Site) is in a rural residential area in South Cairo, Town of Catskill, Greene County, New York, approximately thirty miles southwest of Albany and five miles west of the Village of Catskill. The approximately eight-acre site is bordered by Routes 23B and Route 23 on the north and south, respectively, by a residential property on the west, and by New York State-owned property to the east (Figure 1.1). The Site contains the former American Thermostat building and the water treatment plant constructed for the implementation of the groundwater remedy.

The area surrounding the Site is characterized as rural-residential. There are a few full-time residences, vacation homes, and several small businesses in the vicinity of the Site. The American Thermostat Co. was the only manufacturing facility in the area. Approximately 5,000 people live within a three-mile radius of the Site in low-density residential areas.

1.1 SITE HISTORY AND DESCRIPTION

American Thermostat Co. produced thermostats and used chlorinated and non-chlorinated solvents in its manufacturing from 1954 to 1985. The waste solvents were disposed on the property and/or discharged to the septic system.

In 1981, the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health sampled nearby residential wells and detected tetrachloroethene (PCE) at concentrations exceeding federal maximum contaminant levels. Shortly thereafter, the United States Environmental Protection Agency (USEPA) assumed management of the Site and installed a point of entry treatment (POET) system consisting of a carbon filtration unit on affected homeowners' wells. American Thermostat Co. ended site operations in 1985, and in 1987, the USEPA commissioned a focused feasibility study to evaluate an alternate water supply for affected residents.

1.1.1 OPERABLE UNIT 1 RECORD OF DECISION IMPLEMENTATION

In 1988, a Record of Decision (ROD) was signed for Operable Unit 1 (OU1) that outlined the extension of the existing public water supply to provide a permanent and reliable solution for the

prevention of health risks to area residents associated with exposure to contaminated groundwater (USEPA, 1998). In 1998, following the completion of the public water supply extension in 1992, site-related contamination was observed in the communal water supply for the Country Estates mobile home park located 3,000 feet northwest of the Site and in three residential wells (USEPA, 2003 and MACTEC, 2013c). Country Estates has two bedrock wells (CE-1 and CE-2) that provide water for tenants within the mobile home park. POET systems were installed and maintained for the individual Country Estates water supply wells and the three residences as an alternative remedial action for OU1.

1.1.2 OPERABLE UNIT 2 RECORD OF DECISION IMPLEMENTATION

The USEPA conducted a remedial investigation for soil, surface water, and groundwater at the Site. In 1990, a ROD for Operable Unit 2 (OU2) was issued outlining mitigation measures for addressing the source of the soil and groundwater contamination at the Site as well as contamination in the groundwater contaminated plume emanating from the Site.

Remedial actions implemented for the OU2 ROD included:

- Excavation and treatment of on-site soils (approximately 38,000 cubic yards) via ex situ low temperature thermal desorption.
- Decontamination of the manufacturing building.
- Implementation of a groundwater extraction and treatment system (GWETS) for the groundwater plume emanating from the Site with reinjection of the treated water into the ground.

The GWETS, as commissioned in 1998, consisted of 14 open-hole bedrock extraction wells, 16 screened overburden extraction wells, 14 open-hole bedrock re-injection wells, and three re-injection trenches (MACTEC, 2018b). The re-injection trenches could not sufficiently handle the volume of effluent due to the poor permeability of the soil. The bedrock re-injection wells also proved ineffective at handling the volume of effluent due to the relatively low transmissivity of the bedrock aquifer, and injection into the bedrock aquifer was subsequently terminated.

The GWETS became fully operational in 1998, and the USEPA conducted five-year reviews in 2003, 2008, 2013, 2018, and 2024. In 2008, following 10 years of Site Management (SM) by the USEPA, the SM activities were transferred to the NYSDEC.

The GWETS was modified to its current configuration of five bedrock extraction wells and seven overburden extraction wells in 2013 as part of the Remedial Systems Optimization (RSO) described further in report Subsection 1.3. The on-site injection wells were abandoned in 2021 (MACTEC, 2021b), but the off-site open-hole bedrock injection wells located within the groundwater plume were not abandoned. Three off-site injection wells (IW-8, IW-9, and IW-10) were repurposed as monitoring wells for long-term groundwater monitoring. The remaining off-site injection wells are not used for site monitoring. Currently, the GWETS effluent is discharged to a surface drainage swale on the eastern side of the Site that eventually leads to Catskill Creek. The discharge pipe is inspected quarterly.

1.1.3 NON-RECORD OF DECISION SITE ACTIVITIES

In the winter of 2012, the vapor intrusion pathway within the plume boundaries was evaluated (MACTEC, 2012b). Soil vapor intrusion (SVI) sampling indicated a potential migration pathway of vapors to the site manufacturing building and to an adjacent property (Structure 3) located northwest of the Site. In October 2020, the open sump basin in the Structure 3 basement slab was replaced with a lined sump basin with cover as an engineering control to reduce SVI potential at this property. Cracks in the slab were sealed to prevent vapor exposure potential (MACTEC, 2021a). Standing water has been observed in Structure 3's exterior basement stairwell since December 2020, and it is therefore assumed that the basement contains standing water. Follow-up SVI sampling was to occur after the completion of sump replacement and slab crack sealing but was postponed until conditions allow for safe entry into Structure 3. Structure 3 is currently unoccupied, and further SVI sampling will be considered if the property becomes reoccupied in the future.

In 2018, a geothermal heating/cooling assessment was performed at the Site to evaluate utilization of extracted, treated groundwater to reduce utility expenditures and greenhouse gas output. The assessment was updated in 2022. Details of the assessment are summarized in Section 3.0 of this report.

1.2 PHYSICAL SETTING

The topography in the vicinity of the Site is characterized by the gently rolling foothills of the Catskill Mountains, which are deeply incised by stream channels. The Site is located on a slight ridge

overlooking Catskill Creek Valley. Immediately west of the facility is a small valley which includes Tributary B, a tributary of Catskill Creek. East of the facility is Tributary A, which also flows into Catskill Creek, approximately a quarter mile to the east of the Site (Figure 1.2).

Regionally, the bedrock within Greene County consists of interbedded shales and sandstones of Devonian age, known as the Catskill Formation. The Catskill Formation is comprised of four distinct bedrock groups. From oldest to youngest, these groups are Hamilton, Genesee, Sonya, and West Falls. Bedrock underlying the Site is part of the Hamilton Group. Near the Site, the bedrock is at an average depth of 28 to 30 feet below ground surface (bgs). However, the bedrock surface is steeply incised at approximately 100 feet bgs near the former manufacturing building. Overburden overlying bedrock consists primarily of glacially derived soils (i.e., till).

There is limited hydraulic connection between the overburden and bedrock at the Site (MACTEC, 2013a). Overburden groundwater is perched and slowly drains laterally toward low lying areas, and vertically into the bedrock aquifer. Bedrock groundwater level fluctuations recorded during the RSO implementation field investigation in 2012 were compared to barometric fluctuations and the resulting relationship between water level fluctuation and barometric fluctuation indicated that the bedrock aquifer is likely semi-confined (MACTEC, 2013a).

Catskill Creek, located to the north and east of the Site, is classified as a trout stream and has considerable recreational value to local and visiting fishermen. The creek is also an auxiliary water supply for the Village of Catskill.

1.3 CLEANUP GOALS AND REMEDIAL PROGRESS

Implementation of the OU2 ROD was initiated by the USEPA in 1990, with the building decontamination and soil remediation elements completed by 1996. The groundwater remedy for OU2 was initiated in 1990 with the GWETS fully operational in July 1998 (MACTEC, 2018b). Operation and maintenance (O&M) of the GWETS is the only active OU2 remedial element transferred with the Site to the NYSDEC in 2008. Therefore, the GWETS and OU1 POET systems are considered for discussion of cleanup goals and remedial progress for the Site.

The GWETS, consisting of five bedrock extraction wells and seven overburden extraction wells, discharges treated water to a surface swale on the eastern side of the Site that drains to Catskill Creek. Monitoring of the OU2 groundwater remedial measure historically included three residential POET systems maintained and sampled by the NYSDEC since 2008 and the Country Estates communal water supply. Additional information on the OU2 monitoring well network is provided in report Subsections 2.1.3 and 2.2.2.

The ROD for the OU2 groundwater remedy states: “The groundwater treatment will continue until federal and state standards for the organic contaminants have been achieved in the groundwater throughout the contaminated plume area or until a point has been reached at which contaminant concentrations in the groundwater ‘level off’. At that point, the remedy will be reevaluated for its effectiveness.” It was assumed in the 1990 OU2 ROD that the selected remedial alternative for groundwater would take up to 30 years to achieve cleanup levels (five micrograms per liter [µg/L] for PCE).

Based on the findings of the 2008 Final RSO Report (MACTEC, 2008), the NYSDEC implemented several recommended optimization efforts at the Site and conducted an RSO implementation field investigation in 2012 to:

- evaluate remedy performance relative to remedial goals
- identify potential changes to the remedy to enhance effectiveness, reduce costs, and shorten time to closure
- verify site conceptual model and closure strategy
- identify problem areas and recommend improvements
- evaluate progress in reaching closure (MACTEC, 2012a)

Concentration trends of site contaminants in the off-site plume at active extraction wells appeared to be steady and/or slightly trending downward. However, in the source area, concentrations remained elevated (above 1,000 µg/L) and declining at an ever-slowing rate, indicating that concentrations may be sustained by the presence of a residual contaminant source. It appeared that groundwater treatment had reached a point at which contaminant concentrations had more or less “leveled off,” and it was recommended that the remedial action be reevaluated for its effectiveness.

In 2012, an RSO implementation field investigation was conducted, from which recommendations for optimization of the groundwater remedy were proposed. The Final RSO Implementation Activities Report concluded that groundwater cleanup goals would not be achieved in a reasonable period. Therefore, the remedial objective was redefined and implemented in 2013 to focus on hydraulic containment of the source area of grossly contaminated groundwater (MACTEC, 2013a). The source area of grossly contaminated groundwater, as defined in the recommendations of the Final RSO Implementation Activities Report, is the area with groundwater concentrations of PCE greater than 1,000 µg/L located between the American Thermostat building and Tributary B (Figure 1.2). The redefined remedial objective is currently being achieved through the active extraction well network.

Pumping of former off-site extraction wells hydraulically maintained the shape and direction of the plume to the northwest against the natural groundwater flow path to the northeast towards Catskill Creek. The RSO implementation investigation findings predicted that eliminating extraction of groundwater from off-site deep bedrock extraction wells would allow the off-site bedrock portion of the PCE plume to detach and migrate towards Catskill Creek to the northeast (Figure 1.2). As a result, a small residual portion of the off-site plume would be drawn into the Country Estates supply wells where it would be treated via its existing treatment system, and the remainder of the plume would begin to slowly move toward Catskill Creek where it would eventually discharge and dilute to low concentrations (MACTEC, 2013a). In September 2012, pumping was ceased at off-site bedrock extraction wells EW-10, EW-11, EW-12, and EW-14, located between the Country Estates supply wells and the Site.

To implement the recommendations from the 2013 RSO Implementation Activities Report, Basis of Design (BOD) Memoranda were prepared to define proposed modifications to the groundwater treatment system design to improve effectiveness and lower operating costs (MACTEC, 2013b and 2013d).

From 2013 through the end of 2017, the majority of GWETS improvements proposed in the BOD Memoranda were conducted, including:

- demolition and removal of unnecessary treatment components
- process improvements to the treatment system
- upgrade of 12 extraction wells, abandonment of nine on-site overburden extraction wells in accordance with NYSDEC Groundwater Monitoring Well Decommissioning Policy (CP-

- 43) (NYSDEC, 2009), conversion of 14 extraction/injection wells to monitoring wells, and removal of nine injection wells from service
- installation of an updated controls infrastructure including new control panels in the GWETS building and at each extraction well, and providing programmable logic controller (PLC) programming and communication between each well location and the GWETS building

From 2018 to 2023, GWETS modifications including well pump programming adjustments and system component upgrades were implemented to continue optimization efforts. Details of the improvements accomplished from 2018 to 2020 are provided in the 2018 Annual Report (MACTEC, 2019), 2019 Annual Report (MACTEC, 2020), and the 2020 Periodic Review Report (MACTEC, 2021a). Details of the improvements accomplished from 2021 to 2023 are included in Subsection 2.1.2 of this report.

The sampling frequency of pre-treatment (influent) water at the Country Estate wells CE-1 and CE-2 was reduced from quarterly to a 15-month sampling frequency in 2014 following the shutdown of the off-site extraction well network in September 2012. Influent groundwater samples collected from the Country Estates supply well CE-1 historically have contained low to no detections of PCE, trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (Appendix A). CE-1 is no longer used to track the off-site PCE plume and was last sampled during the 2016 long-term monitoring (LTM) event. This well is not currently in service and serves as an emergency backup well to CE-2, the main supply well for Country Estates. Concentrations of PCE and TCE at CE-2 have mostly been below the New York State (NYS) Class GA Water Quality Standards (Class GA standard) of 5 µg/L for PCE and TCE (NYSDEC, 1998) since 2014 with isolated exceptions (Appendix A).

Operation, maintenance, and monitoring (OM&M) of the POET systems for the Country Estates supply wells was transferred from the NYSDEC to the County Estates owner in April 2010. As of March 2024, the POET system for Country Estates' active water supply well CE-2 is monitored by the NYSDEC (NYSDEC, 2024). The POET system for CE-1 is present but not in use and is therefore not monitored.

Following the cessation of pumping in the off-site bedrock extraction wells, sample results from the Site's LTM wells located within the footprint of the off-site groundwater plume have continued to show a declining trend of PCE and TCE concentrations. The declining trend indicates that the off-

site groundwater plume has successfully detached, is migrating to the northeast towards Catskill Creek, and that matrix diffusion from bedrock fractures is a continuing source of site contaminants of concern (COCs) at individual wells including the Country Estates supply well CE-2.

Detachment of the off-site groundwater plume and movement of the western tip of the plume away from the Country Estates supply wells toward Catskill Creek is further evidenced by an increase in PCE concentrations from 2014 to 2018 in downgradient monitoring well EW-13 (located approximately 1,500 feet east of CE-2). A general declining trend has been observed at EW-13 since 2018 which suggests that the core of the plume has migrated beyond this location with concentrations likely sustained by matrix diffusion from bedrock fractures. Monitoring of the off-site migration and natural attenuation of the plume is accomplished with the LTM program and is further discussed in report Section 2.0.

2.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

The Site Management Plan (SMP) includes an Institutional and Engineering Controls Plan, O&M Plan, LTM Plan, and associated reporting (MACTEC, 2018b). SM requirements are summarized in Table 2.1. The content of Table 2.1 is a combination of the requirements specified in the SMP and those implemented as part of the RSO implementation recommendations (MACTEC, 2013a).

2.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS

Institutional controls/engineering controls (ICs/ECs) provide added protection measures for potentially exposed receptors over and above natural attenuation mechanisms and source area remedial measures. ICs for the Site include restrictions to soil excavation, groundwater use and well installations, and a monitoring plan. Adherence to the ICs is required by and implemented under the SMP. ECs consist of the GWETS, the site perimeter fence, monitoring wells, residential POET systems, and an alternate water supply (MACTEC, 2018b).

Hydraulic control of the bedrock source area is maintained by the GWETS to confine the plume extent and migration and to recover contaminant mass. The site perimeter fence prohibits unauthorized access to the GWETS building and is inspected monthly. Monitoring wells (on- and off-site) are used for collecting groundwater samples and elevation measurements as part of the LTM program. POET systems for three residences without municipal water, directing potentially affected residential groundwater through two-stage granular activated carbon (GAC) filtration, have been monitored through routine maintenance and quarterly collection and analysis of groundwater samples. In May 2022, the NYSDEC issued letters to the three residences ending its responsibility of POET system OM&M (NYSDEC, 2022a, 2022b, 2022c). These POET systems are no longer considered a site EC. The OU1 alternate water supply consisting of a public water supply line, extended to the vicinity of the Site from the Village of Catskill in 1992, is maintained by the Village of Catskill (MACTEC, 2018b).

At the site transfer from USEPA to the NYSDEC in 2008, the Country Estates groundwater communal water supply treatment system was maintained and sampled by the NYSDEC. Treatment system O&M responsibilities were transferred from the NYSDEC to the Country Estates owner in

April 2010 (MACTEC, 2013c). A pre-treatment sample is collected from Country Estates' primary water supply well CE-2 as part of the Site's long-term groundwater monitoring program discussed in report Subsection 2.4. As of March 2024, the POET system associated with the Country Estates active water supply well CE-2 is monitored by the NYSDEC (NYSDEC, 2024).

RSO implementation field activities in 2012 identified surface and subsurface soil PCE contamination at the Site that exceeds the ROD cleanup goal of 1 milligram per kilogram. Surface soil contamination was identified immediately adjacent to the former manufacturing building (MACTEC, 2013a). To control exposure to contaminated soils, an IC was established requiring written permission from the NYSDEC to excavate site soils as well as adherence to the Excavation Plan in the SMP (MACTEC, 2018b).

The former manufacturing building is currently used for the storage of vintage cars slated for restoration. Should the owner use the building for any activity other than the current use for storage, vapor mitigation may be necessary to address worker exposure by SVI.

2.1.1 SITE CONTROLS AND EVALUATION

Requirements for the site controls are presented in Table 2.1. Effectiveness of the groundwater remedial measures is directly related to maintenance and monitoring of treatment processes related to the GWETS. Progress of groundwater remediation is tracked through the performance of the GWETS, through the LTM program (Table 2.2), through the interpretation of plume extent, and through the evaluation of trends in concentration over time (MACTEC, 2013a). Each of these components are discussed in the following report subsections.

2.1.2 GROUNDWATER EXTRACTION AND TREATMENT SYSTEM

Operating parameters for the GWETS include monitoring the volume of groundwater treated (gallons), flow rate (gallons per minute [gpm]), system downtime (days), and total volatile organic compounds (VOCs) extracted from groundwater (pounds). These parameters are summarized in Tables 2.3, 2.4, and 2.5. In 2023, the treatment plant processed approximately 7.2 million gallons of groundwater at an average flow rate of 14 gpm and removed 141 pounds of total VOCs. A summary of GWETS performance monitoring results for 2023 is provided in Table 2.6. GWETS performance

monitoring results for the reporting period are included in Appendix B.

The following GWETS modifications, improvements, and activities were completed during the reporting period.

In 2021, GWETS modifications and improvements implemented included:

- replacement of the seal assembly on Discharge Pump B to repair a leak
- removal of an extraneous wye strainer filter and screen from the system's discharge pipe, between the air stripper sump and discharge pumps, and cleaning of this section of pipe to resolve flow restrictions from fouling
- replacement of the SYSOP OK indicator light and fuse at overburden extraction well OW-7's control panel
- purchase of a Grundfos pump controller wireless remote
- replacement of the pressure sensor in bedrock extraction well EW-9 to resolve an erroneous high-pressure alarm from a failed sensor

Additional activities completed in 2021 as part of OM&M at the Site included:

- abandonment of six former injections wells (IW-1, IW-2, IW-3, IW-4, IW-5, IW-6) and four unused monitoring wells (UNK Well-02, UNK Well-03, UNK Well-05, and WB-4) (MACTEC, 2021b) in accordance with NYSDEC Groundwater Monitoring Well Decommissioning Policy CP-43 (NYSDEC, 2009)
- annual inspection of the treatment building by the New York State Office of Fire Prevention and Control
- purchase of a replacement push lawn mower for maintaining grass within the site perimeter fence
- off-site transportation and disposal of investigation derived waste
- support in response to basement flooding in Structure 3
- placement of approximately 0.2 cubic yards of material, approved for reuse by the NYSDEC, in ruts at the western portion of the on-site wellfield

In 2022, GWETS modifications and improvements implemented included:

- replacement of level transmitter fuses in EW-16 and OW-13
- replacement of non-functioning pumps in overburden extraction wells OW-3, OW-7, OW-13, and OW-16
- replacement of the flow meter O-ring at bedrock extraction well EW-6
- phased reduction of the pumping rate at EW-9 as part of the optimization evaluation to further reduce over pumping, collection, and treatment of clean off-site water (MACTEC, 2022a)

Additional activities completed as part of OM&M at the Site in 2022 included:

- removal of expired and unnecessary flammable aerosol products for off-site disposal
- annual inspection of the treatment building by the New York State Office of Fire Prevention and Control
- implementation of semiannual cleaning of extraction well flow meters
- replacement of the Site's water meter by the Village of Catskill Water Department
- NYSDEC assuming responsibility for snow plowing services at the Site

In 2023, GWETS modifications and improvements implemented included:

- replacement of the flow meter fuse in OW-5
- lowering the level transducer in OW-13 from 22 feet to 25 feet
- adding logic to the GWETS main PLC increasing signal communication time between antennas on the treatment building and EW-9's control panel to eliminate potential communication time-outs

Additional activities completed as part of OM&M at the Site in 2023 included:

- annual inspection of the treatment building by the New York State Office of Fire Prevention and Control
- inspection of the on-site propane tank by the NYSDEC's new propane call-out contractor, Superior Plus Propane

2.1.3 RESIDENTIAL POINT OF ENTRY TREATMENT SYSTEMS

While municipal water is supplied through the town distribution system to many houses in the area, three residences located outside the area of the municipal water supply and historically within the residual off-site plume are equipped with POET systems. Monitoring and maintenance were conducted quarterly from 2021 through January 2022. Quarterly sample results letters were issued to the residents. Sampling results indicate that the POET systems were operating as intended.

2.2 OPERATION AND MAINTENANCE PLAN

The remedial measures in place require routine inspection, sampling, and maintenance to provide effective remediation and reduction of exposure to site-related contaminants. O&M procedures and requirements are presented in the SMP (MACTEC, 2018b). The O&M Plan was revised in the 2018 SMP to incorporate the numerous changes implemented at the Site from 2013 to 2017. The following

report subsections describe requirements and compliance with the O&M Plan with respect to the GWETS and individual residential POET systems.

2.2.1 GROUNDWATER EXTRACTION AND TREATMENT SYSTEM

Monthly project reports were generated in 2023 to summarize GWETS system operation and to present operational and maintenance data to the NYSDEC.

The GWETS utilizes a total of twelve extraction wells including five bedrock wells (EWs) and seven overburden wells (OWs):

- EW-2, EW-6, EW-7, EW-9, EW-16
- OW-2, OW-3, OW-5, OW-7, OW-13, OW-14, OW-16

In 2023, a total of ten extraction wells were active:

- EW-6, EW-7, EW-16
- OW-2, OW-3, OW-5, OW-7, OW-13, OW-14, OW-16

Bedrock extraction well EW-2 has been inoperable since September 2020 due to electrical and mechanical issues including loss of power, piping repairs, and pump failure. It was recommended in the Final Extraction Well Optimization Evaluation Field Activities Report that EW-2 be converted to a monitoring well (MACTEC, 2023a). EW-2, in its most recently sampled period of operation (October 2018), had PCE concentrations an order of magnitude (150 µg/L) lower than the threshold to be considered part of the bedrock source area (1,000 µg/L) and represents limited efficiency for contaminant mass removal. Although EW-2 has not been able to be sampled since 2018 due to disabled extraction equipment remaining within the well, groundwater contour maps presented in that report indicate that the EW-7 capture zone includes EW-2 and that active extraction at EW-2 is not necessary to maintain the Remedial Action Objective (RAO) of hydraulic control of the bedrock source area. Extraction well EW-9 is not operating at the time of the submittal of this report due to a presumed failed pump. Repairs and/or modifications are planned for 2025.

An RSO evaluation at EW-9 was conducted in accordance with the Field Activities Plan – Extraction Well Optimization Evaluation (MACTEC, 2022a) to evaluate optimization of contaminant mass removal by the GWETS and focused on pumping rates at bedrock extraction well EW-9.

The following plan was implemented at EW-9 in three phases in 2022:

- Phase 1 (February 1 to April 1) – reduction in pumping rate from 11 gpm to 9 gpm
- Phase 2 (April 1 to June 1) – reduction in pumping rate from 9 gpm to 7 gpm
- Phase 3 (June 1 to August 1) – reduction in pumping rate from 7 gpm to 5 gpm

Each phase included collection of VOC samples from EW-9 following each pumping rate reduction and collection of water level measurements from select groundwater extraction and monitoring wells to evaluate effects of pumping rate reductions on hydraulic gradients. Findings and results are summarized in the Final Extraction Well Optimization Evaluation Field Activities Report (MACTEC, 2023a).

During 2023, the treatment plant processed approximately 7.2 million gallons of groundwater at an average flow rate of 14 gpm and removed 141 pounds of total VOCs (Tables 2.3, 2.4, and 2.5). System influent and effluent samples were collected and analyzed monthly for VOCs; therefore, mass removal is an approximation.

During 2023, there were approximately 10 downtime days, or 3% of the year (Table 2.4). The GWETS was shut down on several occasions in 2023 due to system alarms, power outages, and maintenance periods.

Approximate system downtime for the GWETS fluctuated during 2021, 2022, and 2023: 14 days (MACTEC, 2022d), 12 days (MACTEC, 2023b), and 10 days (Table 2.4), respectively. The total amount of water treated by the system from 2021 through 2023 decreased compared to the 2018 through 2020 reporting period (approximately 30 and 37 million gallons, respectively) (Table 2.3).

Effluent water is discharged from the GWETS to a surface swale which drains to Tributary A (a Class C surface water body) and discharges to Catskill Creek (Figure 1.2). Effluent samples are collected at the end of the treatment system train and compared to Class C standards and guidance values (NYSDEC, 1998) which are applicable at the point of discharge at the swale.

In 2021, monthly effluent samples did not exceed Class C standards and guidance values for site-related VOCs in 2021 and therefore surface discharge limits were met (MACTEC, 2022d).

In 2022, iron exceeded Class C criteria in July, August, and November effluent samples. In August site-related VOCs in the monthly effluent samples exceeded Class C criteria. However, there were no detections of site-related VOCs in the August 2022 influent samples (collected before air stripper treatment). A review of historical data show that the VOC concentrations observed in the effluent sample were consistent with historical influent sample results, and concentrations in the influent sample were consistent with historical effluent sample results. Therefore, it is assumed that the samples IDs were switched either in the field or at the laboratory. Except for the exceedances above, treated effluent water met surface discharge limits in 2022 (MACTEC, 2023b).

In 2023, iron exceeded Class C criteria in the April effluent sample. Monthly effluent samples did not exceed Class C criteria for site-related VOCs and therefore met surface discharge limits. The system performance monitoring results for 2023 are presented in Table 2.6.

2.2.2 RESIDENTIAL POINT OF ENTRY TREATMENT SYSTEMS

Quarterly maintenance and monitoring of the three residential POET systems occurred in 2021 to January 2022. Samples were collected before and between GAC filters, and no exceedances of NYS Class GA standards for site-related VOCs were observed (MACTEC, 2022d and 2023b). Samples were collected from the three residential wells before filtration as part of the April 2021 and July 2022 LTM events and did not contain detections of site-related VOCs. Results for April 2021 are included in the 2021 Annual Report (MACTEC, 2022d), and results for July 2022 are included in the 2022 Annual Report (MACTEC, 2023b). Letters reporting the sample results were issued to the residents.

On May 17, 2022, POET system cessation letters were issued to the three residences because COCs exceeding GA standards had not been detected in pre-treatment groundwater since January 2013 (NYSDEC, 2022a, 2022b, 2022c). The residents were offered the option to keep and assume responsibility for their system or to have the NYSDEC arrange for its removal. One resident opted for partial removal of their POET system. Removal activities were summarized in a NYSDEC Daily Inspection Report (MACTEC, 2022c). Copies of POET system cessation letters are included in Attachment 1 of the 2022 Annual Report (MACTEC, 2023b).

Per email correspondence with the NYSDEC on October 20, 2022, LTM samples are no longer collected from the three residences with former POET systems.

POET system OM&M completed in 2021 and 2022 included the following:

- [REDACTED] Residence
 - Quarterly inspection of the POET system through January 2022, and additional requested inspections in March and June 2022
 - Quarterly sample collection of water before and between GAC filters through January 2022
 - Replacement of particulate filters, GAC filters, and ultraviolet bulb, as necessary, through June 1, 2022. Filters and ultraviolet unit remain in place; owner assumed responsibility for the system.
- [REDACTED] Residence
 - Quarterly inspection of the POET system through January 2022
 - Quarterly sample collection of water before and between GAC filters through January 2022
 - Filters and ultraviolet unit remain in place; owner assumed responsibility for the system
- [REDACTED] Residence
 - Quarterly inspection of the POET system through January 2022
 - Quarterly sample collection of water before and between GAC filters through January 2022
 - Modifications to the POET system in August 2022 by Precision Environmental Services
 - Removal of two GAC tanks from the treatment train
 - Installation of new piping between the particulate filter housing and UV unit
 - Particulate filter and ultraviolet unit remain in place; owner assumed responsibility for the system

2.3 HYDRAULIC MONITORING

Water level measurements are collected semiannually to evaluate hydraulic control of the bedrock source area near the Site (Figure 2.1). Semiannual water levels are collected from a subset of bedrock monitoring and extraction wells for the hydraulic monitoring program in April and October each year. Water levels for the semiannual program are manually measured in nine bedrock monitoring

wells and transcribed from the human machine interface at the treatment system's main control panel for the five bedrock extraction wells, which are measured by transducers.

A synoptic water level measurement round is collected from an expanded network of overburden monitoring wells, bedrock monitoring wells, and bedrock extraction wells once a year (Figure 2.1). Although water levels are collected from the overburden extraction wells, they essentially operate as sumps and do not represent the overall overburden potentiometric surface. The synoptic water level measurement round is used to evaluate groundwater flow in the overburden and bedrock beyond the hydraulic control area and is typically collected during LTM groundwater sampling events as described in report Subsection 2.4. If an LTM event is not completed in a particular year, one of the semiannual hydraulic monitoring events is expanded to collect the full synoptic measurement round.

The 2021 and 2022 water level data and potentiometric surface maps are presented in the 2021 Annual Report (MACTEC, 2022d) and 2022 Annual Report (MACTEC, 2023b), respectively. Water level measurements collected for the April and October 2023 semiannual hydraulic monitoring events are presented in Table 2.7. The expanded water level measurement round was conducted for the LTM event completed in October 2023 where water levels were measured in 22 monitoring wells, five bedrock extraction wells, and seven overburden extraction wells (Table 2.7). Bedrock potentiometric surface maps were generated for April and October 2023 and are presented as Figures 2.2 and 2.3, respectively. An overburden potentiometric surface map was generated for the expanded October 2023 event and is presented as Figure 2.4.

The bedrock potentiometric surface maps (Figures 2.2 and 2.3) indicate that the bedrock source area (roughly centered around extraction well EW-16) is controlled with inward gradients maintained by GWETS operation of the bedrock extraction wells. Overall bedrock groundwater flow beyond the hydraulically controlled source area is to the northeast (Figure 2.3). Groundwater flow in the overburden at the Site is generally to the north and northeast in the direction of Catskill Creek (Figure 2.4).

2.4 LONG-TERM MONITORING

The LTM program is designed to monitor the following (MACTEC, 2018b):

- the effect of the GWETS on contaminant levels in groundwater in the vicinity of the Site

- long-term trends in concentrations of COCs in groundwater
- evaluate the effectiveness of the remedial actions

The objectives of the LTM program are accomplished through groundwater sampling and analysis. Since 2014, groundwater sampling events for the Site have been performed on a 15-month frequency.

Groundwater samples were collected and analyzed for VOCs from select wells (Table 2.2) during the April 2021, July 2022, and October 2023 LTM events, and the data was used to delineate the PCE plume. Data tables and figures from the 2021 and 2022 LTM events were included in their respective annual reports (MACTEC, 2022d and 2023b). Historical groundwater results for Site VOCs through 2022 are provided in Appendix A.

For the October 2023 LTM event, samples were collected from 28 locations. Depictions of well locations, bedrock and overburden potentiometric surfaces, and the inferred bedrock and overburden groundwater PCE plumes from the October 2023 LTM event are included in Figures 2.1, 2.3, 2.4, 2.5, and 2.6, respectively. Field records from the October 2023 LTM event are included in Appendix C. Analytical results for site COCs in groundwater for the October 2023 LTM event are presented in Table 2.8. A copy of the Category A Review validation document is provided in Appendix D. Time-series plots of PCE concentrations in select wells are provided in Appendix E. Laboratory results for samples were provided to NYSDEC in electronic document delivery format for uploading into EQUIS.

Bedrock extraction wells EW-2, EW-6, and EW-9 were off-line during the LTM event and therefore were not sampled. Pumps in overburden extraction wells OW-7 and OW-13 would not activate during the LTM event due to a dry running alarm and therefore were not sampled. Troubleshooting and repairs at unsampled wells are tentatively scheduled for 2024, and samples will be collected following repairs. The results from this sampling will be presented and discussed in the next reporting period. The results of this sampling will be communicated to the NYSDEC and USEPA for informative purposes in the interim. OW-7 and OW-13 were sampled on March 5, 2024, and EW-6 was sampled on March 19, 2024, but were not covered during this reporting period.

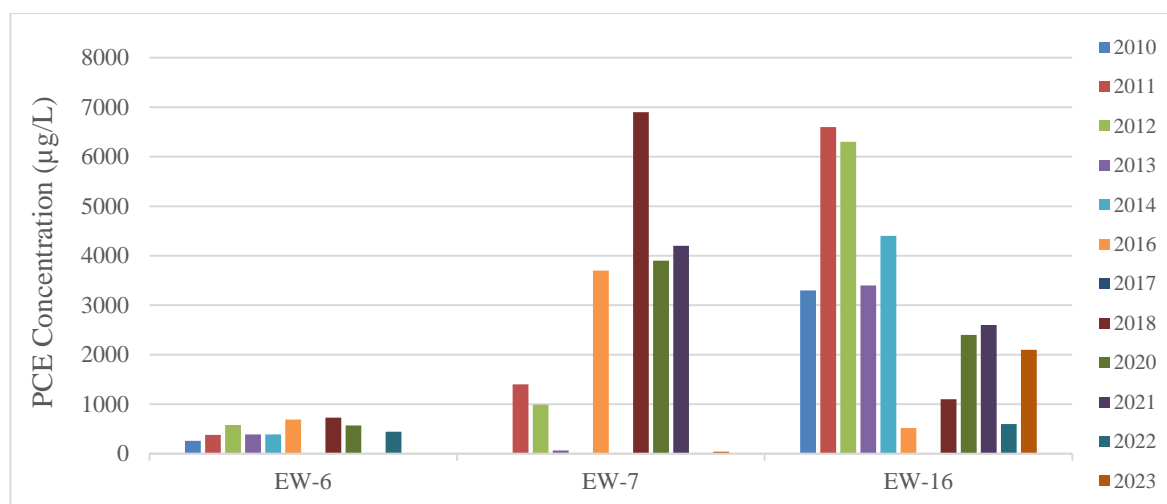
The highest concentrations of PCE and TCE in bedrock were observed in groundwater at EW-5 and EW-16. The highest concentrations of site COCs in overburden were observed in OW-3 and OW-14. These findings are consistent with results observed since the reconfiguration of the GWETS.

The core of the bedrock groundwater PCE plume is centered around EW-16 and shows signs of changing shape and shifting toward Catskill Creek, likely because of the discontinuance of off-site extraction wells. The leading edge of the plume, as evidenced by PCE detected at EW-13, is interpreted to be beyond the influence of the on-site extraction system and is expected to continue to migrate towards Catskill Creek.

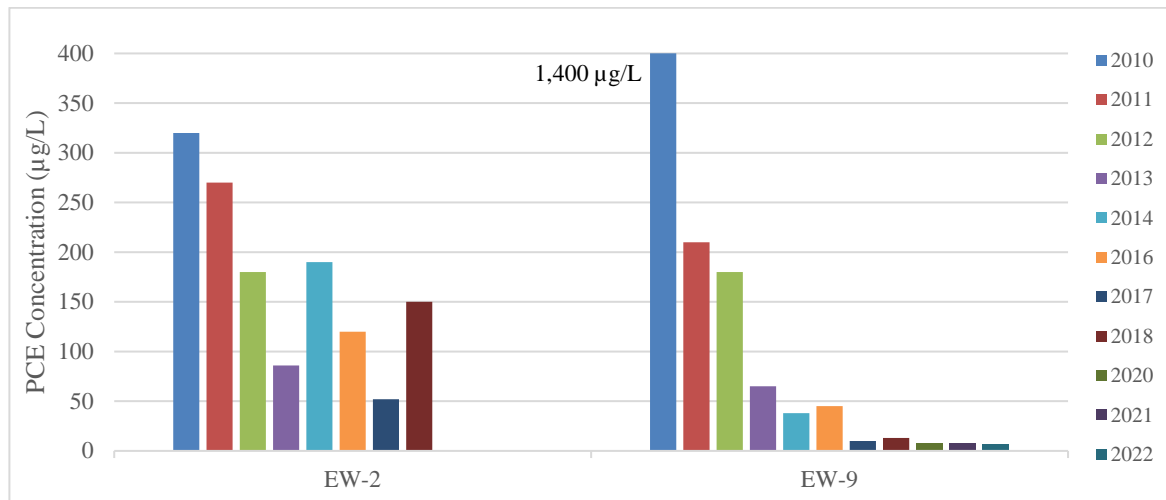
Since 2010, the nature and extent of the overburden groundwater plume has been variable, with hot spots related to interpreted residual source areas with steep concentration gradients, consistent with previous sampling events at the Site. The October 2023 result for PCE of 11,000 µg/L in OW-3 suggests that residual product remains present in the overburden. However, these observations agree with the conceptual site model that: 1) overburden groundwater is not migrating horizontally beyond the influence of the overburden extraction well network, and 2) is primarily vertically flow-dominated within the fractured till.

The histograms shown below present PCE concentrations over time in the bedrock extraction wells situated in the core of the bedrock source area. The changes in PCE concentrations in these wells support the optimized plume capture from re-configured GWETS in 2017 with a reduction in over-extraction of clean water from off-site.

PCE Concentrations in Bedrock Source Area Extraction Wells



PCE Concentrations in Bedrock Extraction Wells EW-2 and EW-9



Time-series plots of PCE concentrations in extraction well OW-14, EW-7, and EW-16 and off-site monitoring wells CE-2, EW-13, and M-5 were prepared to evaluate the long-term effectiveness of the modified extraction well network (Appendix E).

Overburden extraction well OW-14 and bedrock extraction wells EW-7 and EW-16 were selected to monitor on-site changes in groundwater quality. Wells OW-14 and EW-16 have historically shown high concentrations of PCE but have exhibited a general downward trend in PCE concentrations beginning in 2013/2014 through 2023. In contrast, PCE levels in EW-7 have exhibited a general upward trend from 2013 to 2021, likely a result of optimized pumping rates that have limited the overextraction of clean off-site groundwater; however, a considerable decrease occurred between 2021 (4,200 µg/L) and 2022 (6.5 µg/L) with a slight increase in 2023 (40 µg/L). The fluctuations in groundwater quality at EW-7 may be related to changes in the pumping regime at EW-9 following the 2022 RSO and will be further evaluated in the next LTM sampling event scheduled for January 2025.

Monitoring wells CE-2, EW-13, and M-5 were selected to track progression of the residual off-site plume to the northeast towards Catskill Creek. Country Estates primary supply well, CE-2, has previously been used to track the distal end (i.e., northwest tip) of the residual, off-site plume. LTM sample results from 2014 to 2021 and 2023 have demonstrated consistent PCE concentrations below the NYS Class GA Standard for PCE of 5 µg/L. However, in August 2022, PCE was detected above the standard at 10.9 µg/L. CE-2 will continue to be monitored to track plume migration from

historical receptors (residential water supply wells). The highest PCE concentrations in the off-site plume, observed in EW-13 (located southeast of CE-2), demonstrated a slow overall decline from 2018 to 2023. Monitoring well M-5 was selected as a sentinel well to monitor the northeastward (off-site) progression of the plume beyond EW-13. Although PCE has not been detected in M-5 since 2010, daughter compounds cis-1,2-DCE and vinyl chloride remain above applicable NYS Class GA Standards. This trend demonstrates degradation of PCE either at or upgradient of this location, as is recently evident in other locations in this area. The off-site plume is expected to continue to decrease in concentration through natural degradation processes and migrate to the northeast towards Catskill Creek.

Constituent trend analyses for wells OW-14, EW-7, EW-16, M-5, and CE-2 were performed using the Mann-Kendall test. Test results for PCE, cis-1,2-DCE, and vinyl chloride are included in Appendix F. Overall, trends observed for PCE and associated daughter products are stable or indicate some declining trend in concentrations.

The objective of establishing hydraulic capture of highly contaminated bedrock groundwater (>5,000 µg/L) in close proximity to the Site is being maintained while achieving improved extraction efficiency.

Per email correspondence with the NYSDEC on October 20, 2022, LTM samples are no longer collected from the three residences with former POET systems.

The next LTM sampling event will be conducted in January 2025.

3.0 SUSTAINABILITY AND RESILIENCY

3.1 GROUND SOURCE HEATING AND SOLAR PHOTOVOLTAIC EVALUATION AND IMPLEMENTATION

An updated Ground Source Heating and Solar Photovoltaic Evaluation (an update to the original document [MACTEC, 2018]) was submitted to the NYSDEC in 2022 summarizing an assessment of energy conservation measures designed to reduce utility expenditures as well as greenhouse gas output at the Site (MACTEC, 2022b). The evaluation proposed a ground/water source heat pump (GSHP) system to heat and cool the treatment building utilizing infrastructure already present as part of the GWETS, and a solar photovoltaic system for local electric power generation.

Earth Environment Engineering and Geology P.C. (EEEG) is developing preliminary design packages for a NYSDEC call-out contractor to design, permit, build, and commission the two systems. A site inspection was performed on April 6, 2023, to identify and inventory existing electrical equipment, identify civil site conditions, and identify potential locations for new or upgraded equipment for the proposed GSHP and solar photovoltaic systems.

A draft conceptual solar array layout figure was prepared and presented to the NYSDEC on August 8, 2023. On September 7, 2023, the NYSDEC put the solar design on hold due to a proposed site remedial investigation and feasibility study by the USEPA scheduled to begin in the fall of 2023. The field investigation was postponed and is scheduled to begin in 2025 and continue through 2026. Completion of the design package will resume at the NYSDEC's direction.

EEEG submitted the GSHP system preliminary design package to the NYSDEC on October 30, 2024. NYSDEC's call-out contractor, LaBella Associates, D.P.C., will implement the work in 2025.

4.0 COST CONTROL SUMMARY

A cost summary table for 2023 SM activities is provided in Appendix G. As shown in the table, most of the SM costs were for operation and maintenance of the GWETS. Cost summaries for 2021 and 2022 were presented in their respective annual reports (MACTEC, 2022d and 2023b).

Annual SM costs for 2023 were less than those in 2021 and 2022. Costs were greater in 2021 and 2022 due to residential routine POET sampling, decommissioning of a residential POET system, an extraction well optimization evaluation and associated reporting, well decommissioning and associated reporting, pump and motor lead replacement at four overburden extraction wells OW-3, OW-7, OW-13, and OW-16, and preparation of an updated ground source heating and solar photovoltaic evaluation report. Costs are anticipated to increase due to upcoming scheduled maintenance tasks at the Site.

As of the 2022 to 2023 winter season, the NYSDEC assumed responsibility for snow plowing at the Site and it is no longer subcontracted.

At the NYSDEC's request, EEEG assumed management of site electric, propane, and municipal water utilities from the NYSDEC in 2023.

Since the NYSDEC assumed responsibility from the USEPA for the Site in 2008, annual SM costs associated with reporting, LTM, and GWETS OM&M have decreased by 73 percent, and cost per pound of VOCs removed has decreased by 54 percent. Charts depicting a breakdown of annual SM costs from 2008 to 2023 and cost per pound of VOCs removed are included in Appendix G. Optimization measures to reduce overall operating expenses have been and will continue to be implemented to provide further cost savings at the Site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on information gathered as part of the 2012 RSO investigation, the RAO for the Site was redefined and implemented in 2013 to be hydraulic containment of the bedrock source area in the vicinity of the Site. Optimization efforts of the GWETS to achieve the RAO were initiated in 2013 and completed in 2017, with additional minor modifications completed between 2018 and 2023. By focusing on hydraulic control of the bedrock source area in the vicinity of the Site and ceasing operation of the rest of the off-site bedrock groundwater extraction wells, the off-site portion of the PCE plume to the northwest has detached from the source area and appears to be migrating to the northeast where it will eventually discharge and dilute to low concentrations toward Catskill Creek. Following completion of optimization measures from 2013 to 2017, and as evidenced during the reporting period (January 2021 through December 2023), the effectiveness of the GWETS at achieving the RAO has increased, operating costs have decreased, and the GWETS is continuing to treat groundwater within the Site's source area to reduce contaminant mass.

5.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS

The current ICs/ECs are adequate to achieve the objectives for protection of human health and the environment based on current site use. ICs for the Site, including a restriction on soil excavation, groundwater use and well installations, and a monitoring plan, remain in-place and adhered to. A soil vapor exposure pathway exists at the former manufacturing building and the adjacent property (Structure 3) located northwest of the Site; however, the former manufacturing building is currently used for storage purposes only. Mitigation would be necessary to address exposure to SVI should the former manufacturing building become occupied. In October 2020, the open sump basin in the Structure 3 basement slab was replaced with a lined sump basin with cover as an engineering control to reduce SVI potential at this property. Cracks in the slab were also sealed to prevent vapor exposure potential (MACTEC, 2021a).

ECs include the GWETS, the site perimeter fence, monitoring wells, the three residential POET systems, and an alternate water supply. The GWETS remains effective at treating impacted groundwater and at preventing further migration of impacted groundwater, as evidenced by monthly effluent sampling data that demonstrates adherence to surface water discharge criteria, and by LTM and semiannual monitoring data collected from on- and off-site monitoring wells. The site perimeter

fence is inspected monthly and continues to restrict unauthorized access to the GWETS building. Maintenance, monitoring, and sampling of the three residential POET systems was performed quarterly from 2021 through January 2022, and no exceedances of site-related VOCs were observed. Sampling results indicate that the POET systems were operating as intended. In May 2022, POET system OM&M responsibility was transferred to the residents. It is recommended that the POET systems no longer be considered a site EC. The alternate water supply (public water supply line) is maintained by the Village of Catskill.

5.2 OPERATION AND MAINTENANCE PLAN

The remedial measures in place require routine inspection, sampling, and maintenance to provide effective remediation and reduction of exposure to site-related contaminants. Compliance with procedures and requirements in the SMP was maintained during the reporting period. Site-related VOCs and iron in effluent water samples did not exceed Class GA standards and guidance values during the reporting period, thus meeting surface discharge limits except in July, August, and November 2022 and in April 2023. Monthly project reports will continue to be generated and submitted to the NYSDEC summarizing GWETS operational and maintenance data.

5.3 GROUNDWATER MONITORING PROGRAM

Monitoring the migration and/or degradation of the PCE plume is accomplished through the LTM program in accordance with the SMP. The objective of establishing hydraulic capture of contaminated bedrock groundwater near the Site, resulting from extraction well array modifications initiated in 2013, completed in 2017, and optimized through 2023 has been achieved and is supported through evaluation of contaminant concentration changes in data generated during LTM events. Data from the 2021, 2022, and 2023 LTM events continue to show that the core of the bedrock source area is maintained hydraulically in the vicinity of the Site and that the northwest edge of the residual off-site plume is continuing to migrate northeastward toward Catskill Creek, as evidenced by consistent PCE concentrations below the NYS Class GA Standard for PCE of 5 µg/L in CE-2 since 2014, with the exception of an exceedance in 2022, an overall decline of PCE in EW-13 since 2018, and detections of PCE daughter compounds cis-1,2-DCE and vinyl chloride above applicable Class GA Standards in M-5 since 2010. Changes in groundwater concentrations and plume movement will

continue to be monitored during the 15-month LTM events. The next LTM sampling event will be conducted in January 2025.

5.4 RECOMMENDATIONS

To continue optimizing system efficiency and remedial progress, and to provide further cost savings at the Site, the following actions are recommended:

- Continued implementation, review, and evaluation of the existing ICs/ECs, O&M Plan, and groundwater monitoring program, as applicable
 - Evaluate the long-term monitoring sampling and hydraulic monitoring program and refine to optimize monitoring the off-site bedrock plume.
 - Remove residential POET systems from the list of site ECs.
 - Update the SMP to reflect treatment systems and long-term monitoring plan changes.
- Continued routine GWETS maintenance
 - Conduct general housekeeping activities to improve work processes and eliminate general clutter.
 - Troubleshoot well components as needed to maintain normal system operation.
- Implement recommendations in the Final Extraction Well Optimization Evaluation Field Activities Report (MACTEC, 2023a).
 - Convert EW-2 to a monitoring well.
 - Further evaluate if EW-9 should be removed from service. Based on the relatively low mass removal rate and hydraulic control of the bedrock source area under reduced pumping, continued use of EW-9 may not be needed. Eliminating EW-9 will reduce operating costs as the well frequently requires unscheduled site visits to restore operation caused by power and antenna communication interruptions unique to this well. A rebound study would be proposed for EW-9 under non-pumping conditions prior to removal of supporting extraction infrastructure.
 - Evaluate source of and remedies for level transducer malfunctions in EW-16.
- Conduct a private utility mark-out to identify the perimeter/extent and depth of the Site's septic holding tank and to identify all underground utilities and structures near the tank in preparation for its decommissioning. Historical documentation identifying the above is either incomplete or not available. A private utility mark-out was completed prior to submission of this report (April 1, 2024).
- Decommissioning of the building septic tank and associated plumbing facilities to reduce costs associated with its maintenance. The GWETS has not been staffed full-time since 2017 and the septic tank and plumbing facilities are no longer necessary. Decommissioning was completed prior to submission of this report (May 22, 2024).
- Replace level transducers in EW-7 and EW-16 due to repeated transducer failures.

- Install stilling tubes in bedrock extraction wells EW-6, EW-7, EW-9, and EW-16 for unobstructed, direct water level measurement for routine transducer checks and calibration.
- Generate a preliminary GSHP system design package to heat and cool the treatment building for a NYSDEC call-out contractor to implement the design. The design package was submitted to the NYSDEC prior to submission of this report (October 30, 2024).
- Additional residential sampling is recommended as part of upcoming site activities to further assess contamination at the distal end of the groundwater plume to the northwest of the Site.

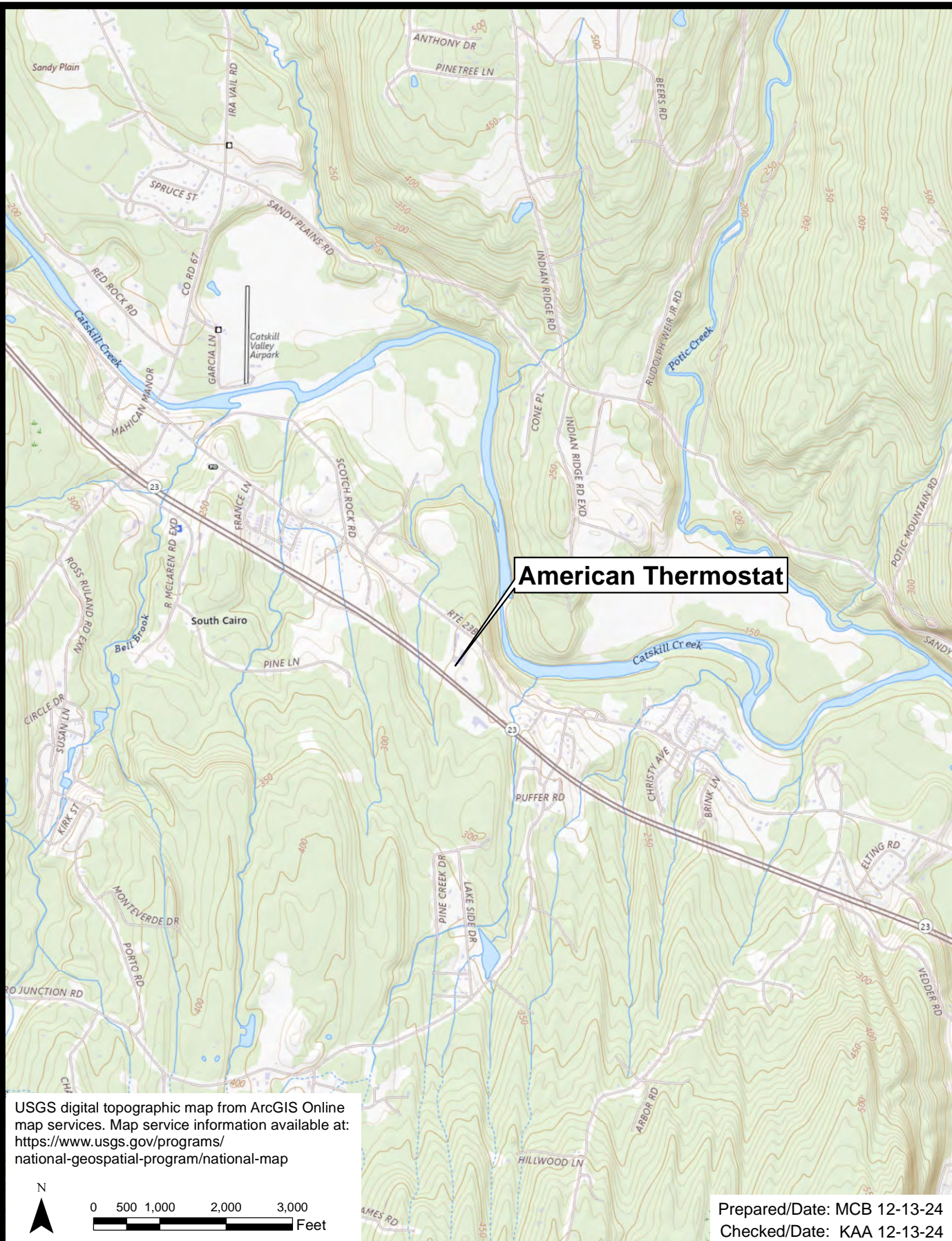
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FIGURES

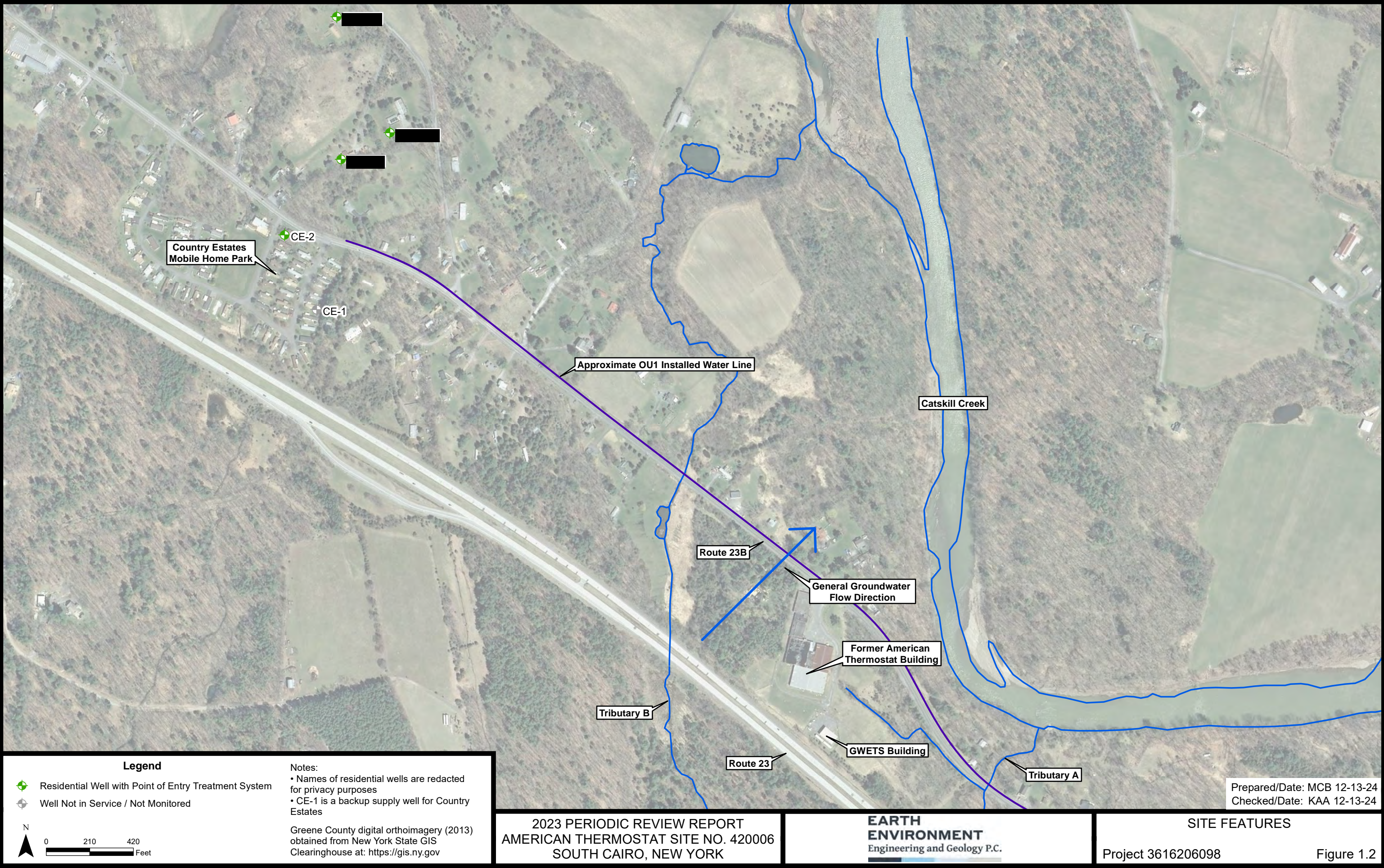
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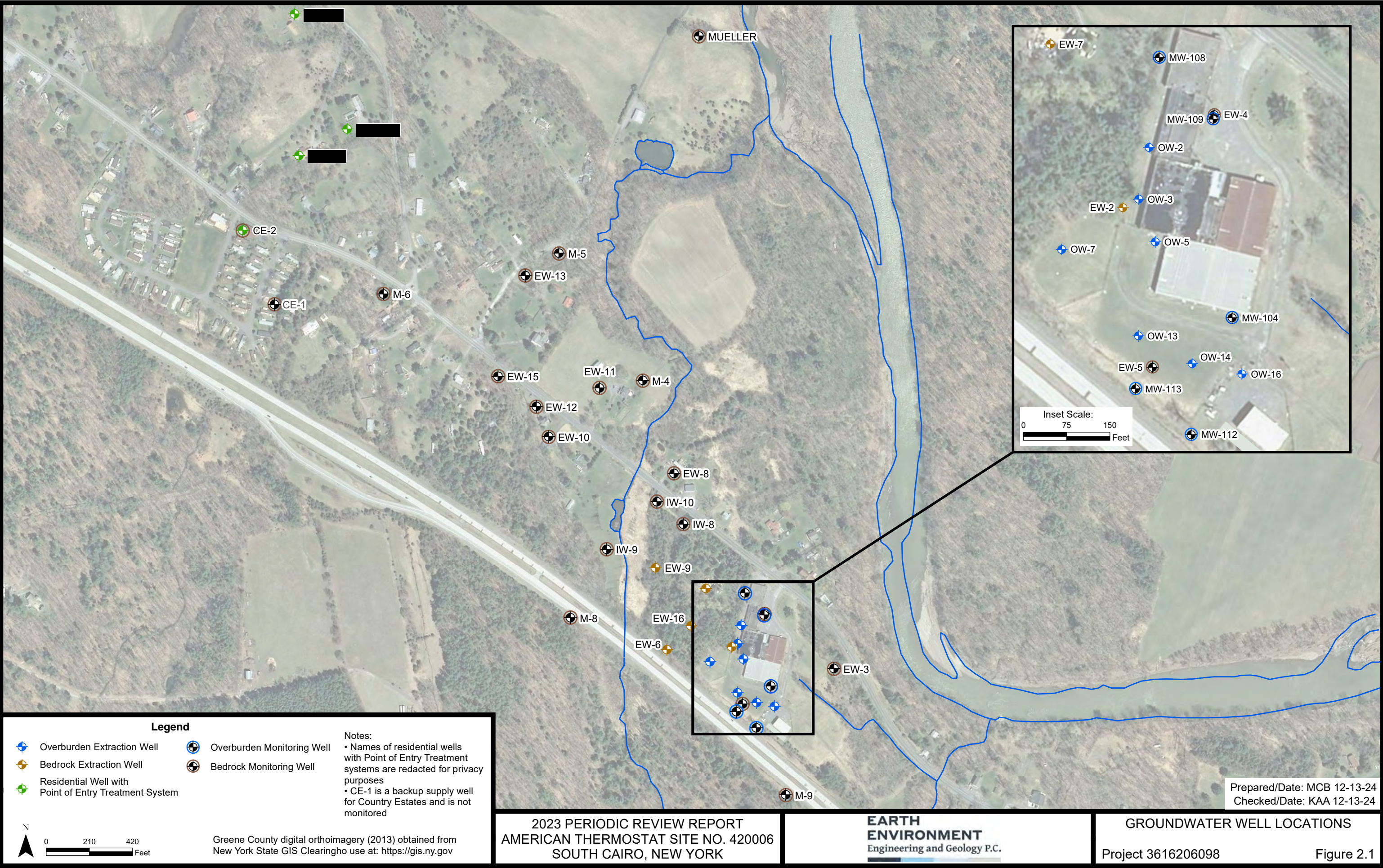


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SOUTH CAIRO, NEW YORK

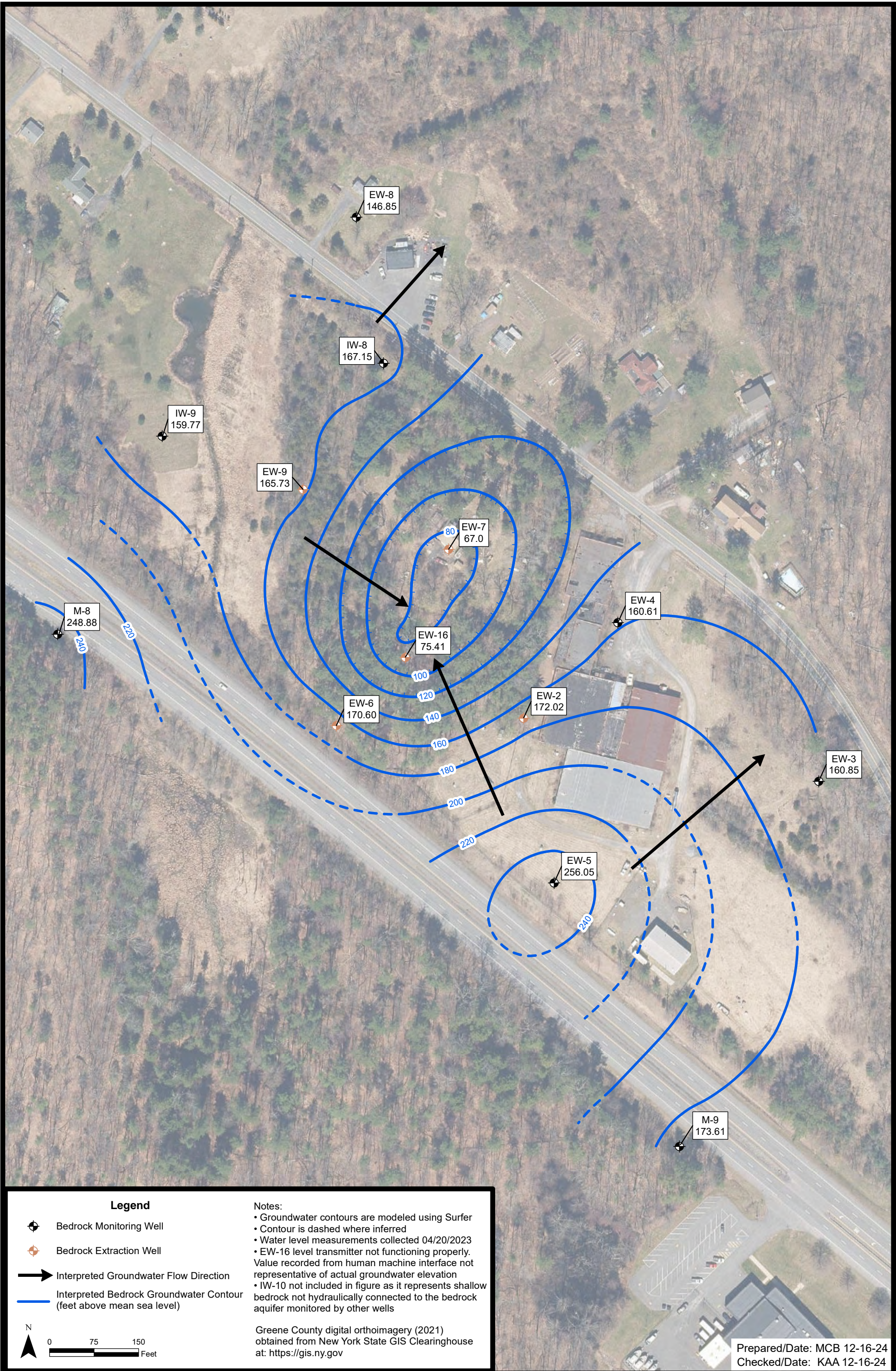
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SITE LOCATION
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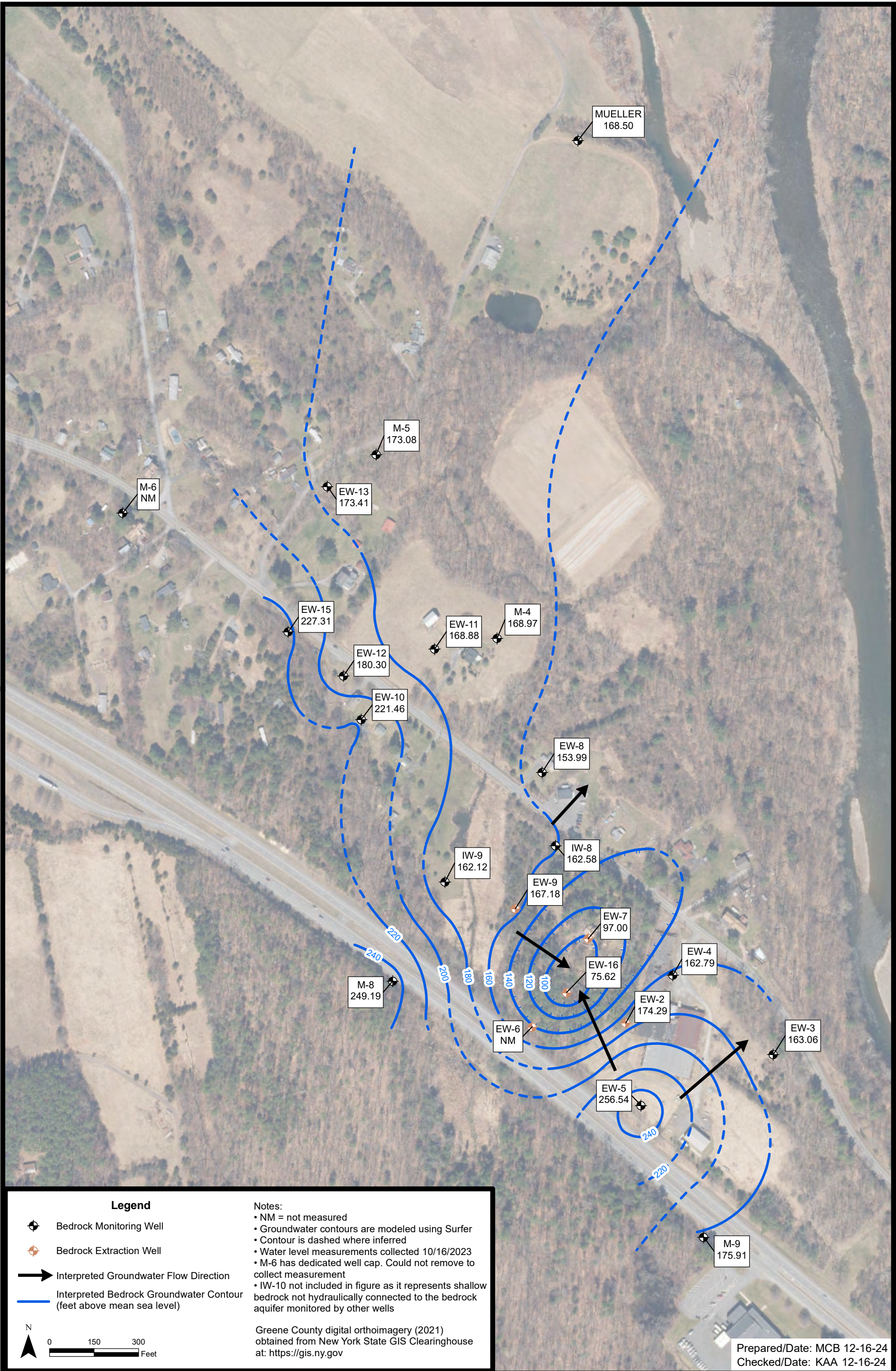




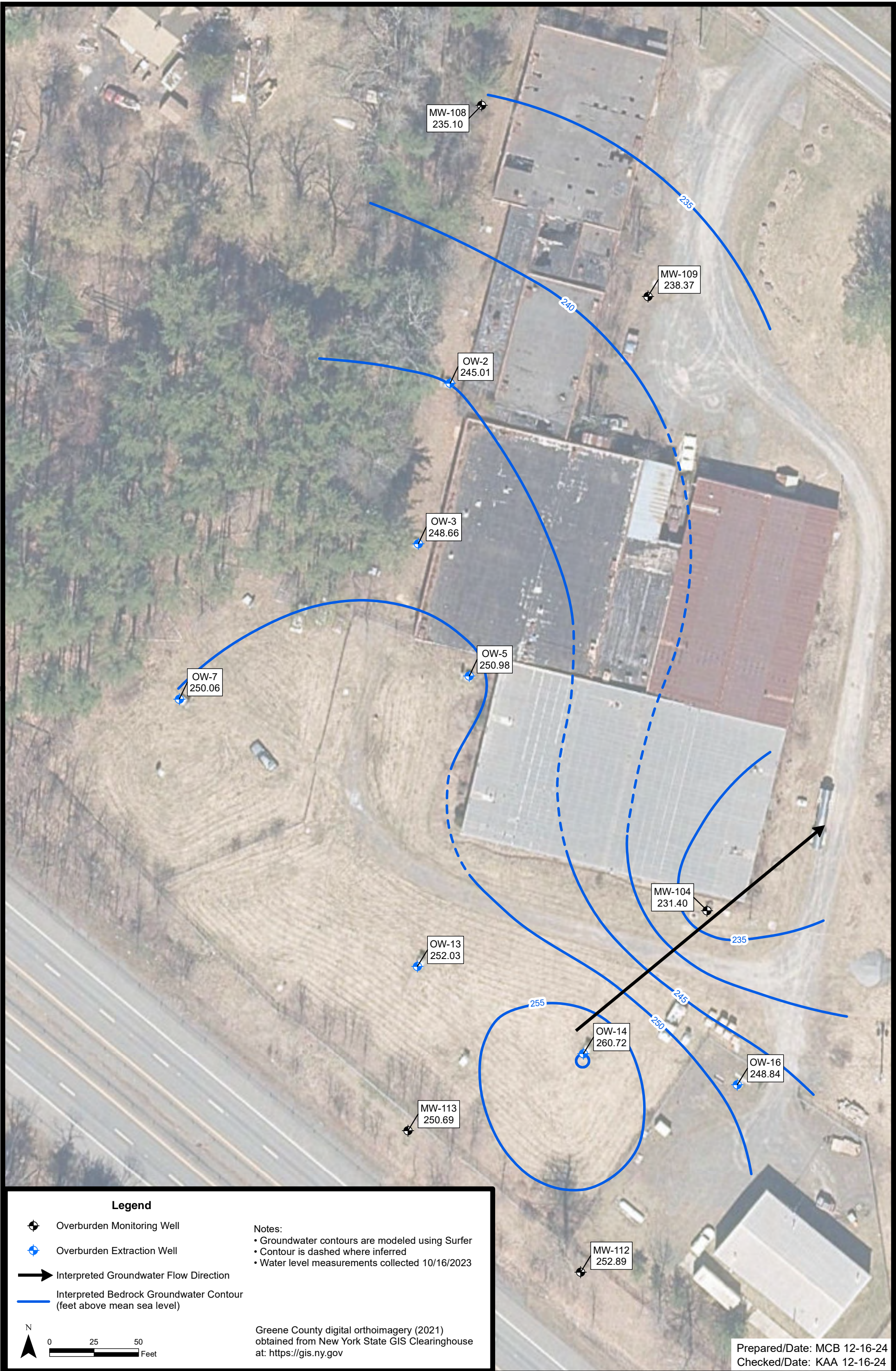
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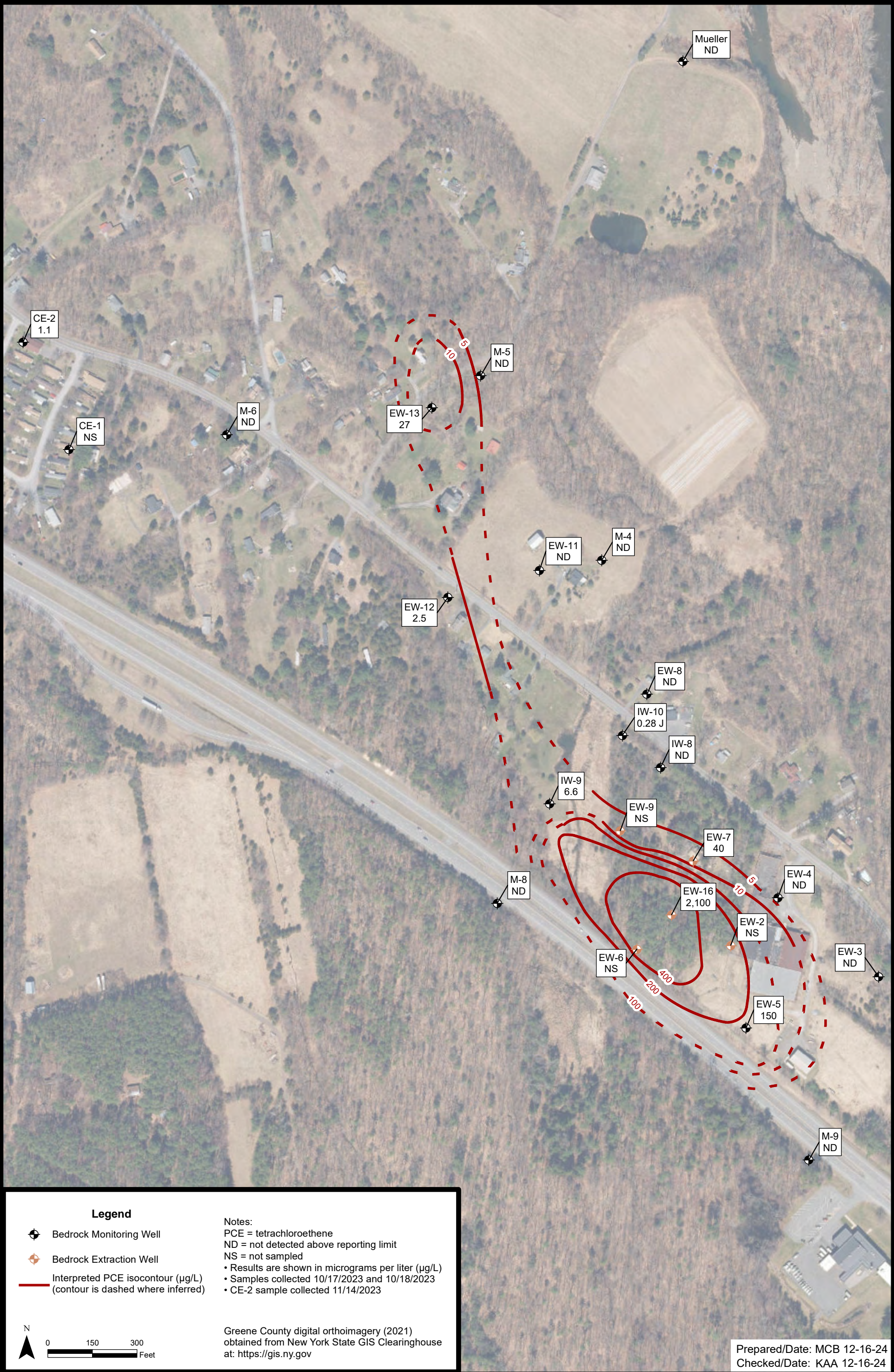
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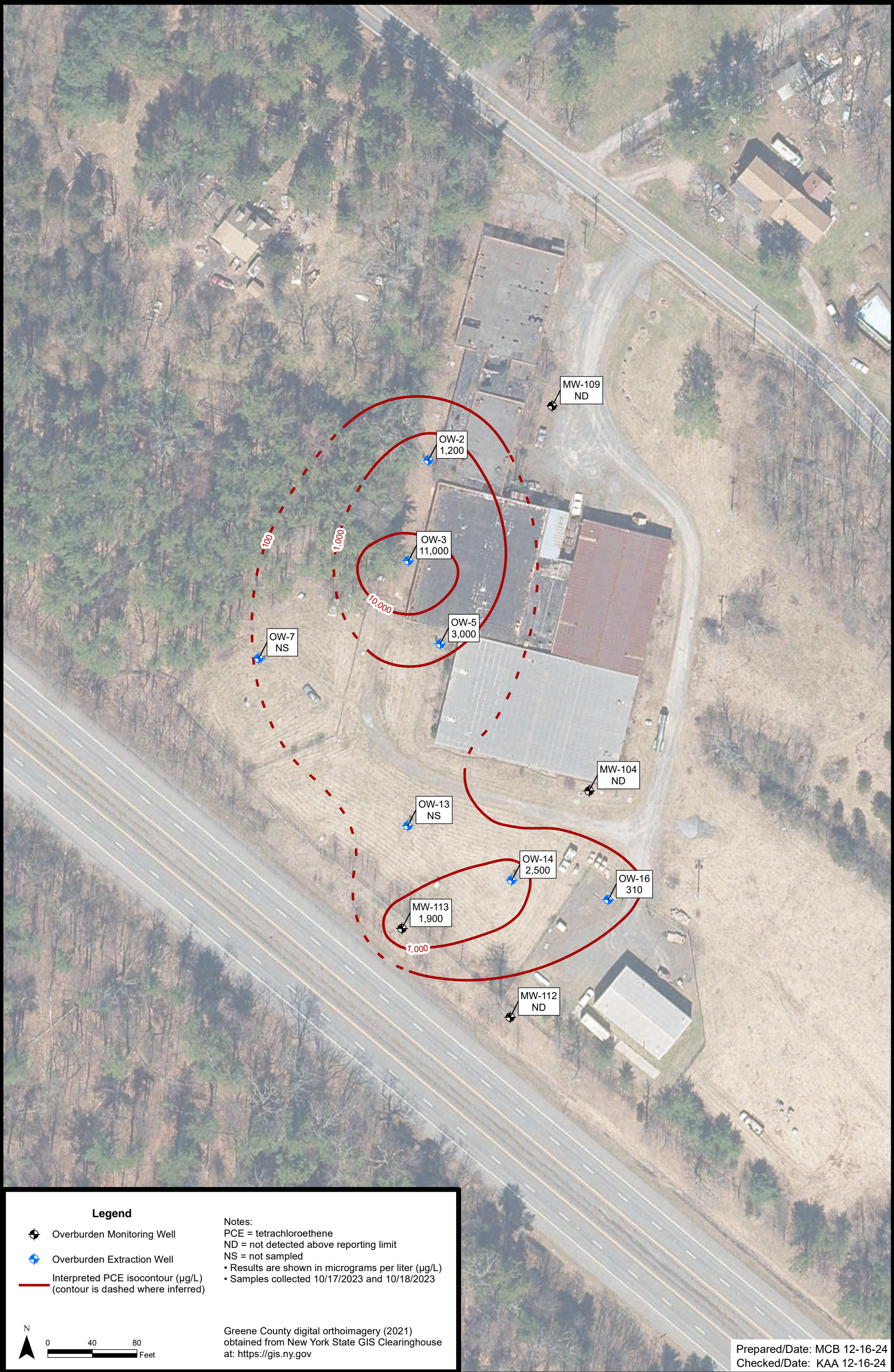
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TABLES

Table 2.1: Site Management Requirements

Component	Action	Required Frequency	Comments/Recommendations
Groundwater Extraction and Treatment System (GWETS)			
GWETS Operation Checklist	Inspection	Each O&M visit	Check groundwater treatment system operation: flow rates, meter readings, system components.
Extraction Wells	Inspection	Each O&M visit	Check extraction wells, housing, control panels.
Control Panel, Heaters	Inspection	Each O&M visit	Check function of control panel indicating lights. In cold weather, verify pilot light operation of heaters.
Safety Equipment, Treatment Plant Lighting	Inspection	Monthly	Inspect safety equipment (ladders, eyewash, fire extinguishers, etc.). Inspect plant lighting for proper operation.
Site Security	Inspection	Monthly	Check treatment building door locks, fencing, and site perimeter fence for defects.
Air Stripper	Inspection/Maintenance	Semiannually	Perform cleaning of air stripper unit trays and sump, if necessary.
Treatment Plant Heaters	Inspection/Maintenance	Annually	Annual inspection and cleaning of heaters; to be performed by a licensed subcontractor.
Groundwater Monitoring System	Inspection	Every 15 months	Visually inspect well pads/locks at site wells; repair as necessary to maintain integrity and security.
System Performance Monitoring			
Influent Header (SP-1)	Plant influent water sampling	Monthly	Grab sample collected to monitor and evaluate GWETS performance.
Treatment Plant Discharge (SP-39)	Plant effluent water sampling	Monthly	Grab sample collected to monitor and evaluate GWETS performance.
Point of Entry Treatment (POET) System			
POET System	Residential water supply sampling and inspection	Quarterly ⁽¹⁾	Grab sample collected between carbon filters to monitor and evaluate water supply and GAC performance. Perform system maintenance on carbon filters and UV system as needed, annual at a minimum.
Environmental Monitoring			
Hydraulic Monitoring	Groundwater level measurements	Semiannually (spring and fall)	Collect groundwater level measurements from extraction wells and select monitoring wells to monitor hydraulic control of the plume near the site.
Groundwater Sampling	Groundwater sampling of 34 wells	Every 15 months	Collect grab/PDB samples from 34 locations including: 20 monitoring wells, 12 bedrock and overburden extraction wells, 2 private supply wells (Country Estates).

Notes:

⁽¹⁾ As of May 31, 2022, NYSDEC is no longer responsible for maintenance and sampling of POET systems.

GAC = granular activated carbon
O&M = operation and maintenance
PDB = passive diffusion bag
UV = ultraviolet

Table 2.2: Long-Term Monitoring and System Performance Sampling Matrix

Sample ID/ Location	Monitoring Interval	Water Level Measurements		Analysis	Sample Description
		Semiannual	15-Month LTM		
Monitoring Wells (15-Month LTM) ⁽¹⁾					
CE-1 ⁽²⁾	bedrock			VOCs	Grab, before filters
CE-2	bedrock			VOCs	Grab, before filters
EW-3	bedrock	X	X	VOCs	PDB
EW-4	bedrock	X	X	VOCs	PDB
EW-5	bedrock	X	X	VOCs	PDB
EW-8	bedrock	X	X	VOCs	PDB
EW-10	unknown		X		Not Applicable
EW-11	bedrock		X	VOCs	PDB
EW-12	bedrock		X	VOCs	PDB
EW-13	bedrock		X	VOCs	PDB
EW-15	unknown		X		Not Applicable
IW-8	bedrock	X	X	VOCs	PDB
IW-9	bedrock	X	X	VOCs	PDB
IW-10	bedrock	X	X	VOCs	PDB
M-4	bedrock		X	VOCs	PDB
M-5	bedrock		X	VOCs	PDB
M-6	bedrock		X	VOCs	Grab
M-8 ⁽³⁾	bedrock	X	X	VOCs	PDB
M-9 ⁽³⁾	bedrock	X	X	VOCs	PDB
Mueller	bedrock		X	VOCs	PDB
MW-104 ⁽³⁾	overburden		X	VOCs	PDB
MW-108	overburden		X		Not Applicable
MW-109 ⁽³⁾	overburden		X	VOCs	PDB
MW-112 ⁽³⁾	overburden		X	VOCs	PDB
MW-113 ⁽³⁾	overburden		X	VOCs	PDB
Active Bedrock Extraction Wells (15-Month LTM) ⁽¹⁾					
EW-2 ⁽⁴⁾	bedrock		X	VOCs	Grab
EW-6 ⁽⁵⁾	bedrock		X	VOCs	Grab
EW-7	bedrock		X	VOCs	Grab
EW-9 ⁽⁶⁾	bedrock		X	VOCs	Grab
EW-16	bedrock		X	VOCs	Grab
Active Overburden Extraction Wells (15-Month LTM) ⁽¹⁾					
OW-2	overburden		X	VOCs	Grab
OW-3	overburden		X	VOCs	Grab
OW-5	overburden		X	VOCs	Grab
OW-7	overburden		X	VOCs	Grab ⁽⁷⁾
OW-13	overburden		X	VOCs	Grab ⁽⁷⁾

Table 2.2: Long-Term Monitoring and System Performance Sampling Matrix

Sample ID/ Location	Monitoring Interval	Water Level Measurements		Analysis	Sample Description
		Semiannual	15-Month LTM		
Active Overburden Extraction Wells (15-Month LTM) ⁽¹⁾ (continued)					
OW-14	overburden		X	VOCs	Grab
OW-16	overburden		X	VOCs	Grab
Residential Wells (15-Month LTM) ⁽⁸⁾					
	bedrock			VOCs	Grab, before filters
	bedrock			VOCs	Grab, before filters
	bedrock			VOCs	Grab, before filters
Residential Well POET System Performance (Quarterly) ⁽⁹⁾					
_BEF, _BET				VOCs	Grab, before & between filters
_BEF, _BET				VOCs	Grab, before & between filters
_BEF, _BET				VOCs	Grab, before & between filters
Groundwater Extraction and Treatment System Performance (Monthly)					
PS-INFLUENT				VOCs, Metals, TDS, TSS	Grab, influent water
PS-AS-EFFLUENT				VOCs	Grab, air stripper effluent water

Notes:

- ⁽¹⁾ LTM event occurred October 17-18, 2023. CE-2 LTM sample collected November 14, 2023.
- ⁽²⁾ CE-1 not in service; acts as an emergency backup well to CE-2 for Country Estates; therefore, not sampled during LTM event.
- ⁽³⁾ Well added to LTM network based on recommendation from 2018 EPA Five-Year Review for the Site.
- ⁽⁴⁾ EW-2 has been inoperable since September 2020 due to electrical and mechanical issues. It cannot be sampled due to presence of extraction well equipment.
- ⁽⁵⁾ EW-6 off-line during LTM event due to failed uninterrupted power supply unit. Sample collected March 19, 2024, but is not covered in this Periodic Review Report.
- ⁽⁶⁾ EW-9 has been off-line since April 2023 due to a presumed failed pump. It cannot be sampled due to presence of extraction well equipment.
- ⁽⁷⁾ Dry running alarm preventing pump from activating to collect grab sample. Sample collected by PDB on March 5, 2024, but is not covered in this Periodic Review Report.
- ⁽⁸⁾ Per NYSDEC, three residential wells no longer sampled as part of LTM for the Site. Last LTM samples collected July 19, 2022.
- ⁽⁹⁾ As of May 31, 2022, NYSDEC is no longer responsible for maintenance and sampling of POET systems. Last samples collected January 4, 2022.

LTM = long-term monitoring
PDB = passive diffusion bag
POET = point of entry treatment
TDS = total dissolved solids
TSS = total suspended solids
VOCs = volatile organic compounds

Table 2.3: Groundwater Extraction and Treatment System Monthly Throughput

Year	Month												Total Calendar Year (gallons)	Cumulative Total Throughput (gallons)
	January	February	March	April	May	June	July	August	September	October	November	December		
1998	-	-	-	-	-	-	-	1,845,307	2,326,580	2,000,099	1,387,734	1,515,814	9,075,534	9,075,534
1999	2,327,342	1,946,464	1,570,828	1,986,297	1,876,550	1,810,328	1,880,672	2,865,086	2,849,292	2,967,620	2,840,040	2,996,042	27,916,561	36,992,095
2000	2,188,662	1,828,969	2,782,069	2,625,243	2,689,205	2,515,671	2,845,066	2,656,221	2,790,754	3,191,008	2,906,470	3,089,535	32,108,873	69,100,968
2001	3,154,385	3,202,253	3,397,280	3,325,592	3,507,403	3,241,052	2,846,350	3,323,930	3,116,812	3,172,179	2,668,748	2,676,774	37,632,758	106,733,726
2002	2,643,561	2,400,906	2,581,039	3,015,136	2,827,722	3,087,176	3,109,504	2,969,001	2,826,453	3,126,848	3,151,070	3,043,354	34,781,770	141,515,496
2003	3,112,140	2,640,103	3,032,627	2,956,081	2,279,599	2,817,292	2,828,580	2,862,294	2,805,159	2,889,540	2,703,444	1,743,574	32,670,433	174,185,929
2004	1,452,060	1,323,679	1,433,444	1,621,998	1,511,813	1,378,343	1,829,427	2,488,132	2,214,838	2,016,922	2,147,628	2,218,612	21,636,896	195,822,825
2005	1,969,101	1,627,579	1,505,083	1,888,648	1,679,210	1,635,094	1,679,658	1,675,021	1,668,387	1,048,462	1,753,165	1,804,582	19,933,990	215,756,815
2006	1,850,648	1,724,943	1,726,705	1,860,726	2,038,414	2,225,379	1,700,523	1,505,840	1,573,918	2,365,602	2,542,691	1,570,319	22,685,708	238,442,523
2007	1,860,431	1,484,866	1,797,869	1,651,491	1,595,631	1,567,880	1,656,624	1,680,981	1,559,100	1,624,903	1,628,116	1,779,807	19,887,699	258,330,222
2008	1,621,909	1,661,136	1,872,515	1,922,613	1,496,402	1,519,804	1,344,964	2,366,862	2,053,268	2,649,688	2,172,569	2,466,153	23,147,883	281,478,105
2009	2,009,299	1,973,492	2,109,251	2,164,940	2,086,536	2,069,749	2,413,904	1,461,639	1,572,872	1,962,537	1,782,527	2,171,560	23,778,306	305,256,411
2010	1,715,140	1,562,130	2,144,107	1,972,606	1,692,254	1,657,835	1,710,898	1,814,591	1,502,900	1,736,300	1,505,900	1,799,400	20,814,061	326,070,472
2011	1,660,400	1,608,200	1,677,100	1,807,700	1,869,800	1,617,700	1,626,100	1,676,400	1,764,200	1,646,400	1,806,000	1,966,500	20,726,500	346,796,972
2012	1,617,600	1,592,100	1,545,800	976,300	1,050,200	655,200	435,000	1,572,000	1,098,900	1,363,800	1,223,500	1,351,200	14,481,600	361,278,572
2013	1,287,600	1,165,900	1,213,400	1,213,400	1,024,000	560,000	-	368,300	282,600	1,133,000	1,240,188	950,031	10,438,419	371,716,991
2014	605,868	537,554	828,412	1,311,895	1,181,124	1,036,409	1,101,365	968,790	516,422	771,419	643,451	804,076	10,306,785	382,023,776
2015	1,055,444	726,839	818,456	829,691	918,585	1,174,145	1,364,309	1,069,571	1,424,510	890,175	-	251,416	10,523,141	392,546,917
2016	1,028,212	1,142,661	1,197,620	1,176,265	1,105,646	1,027,389	1,159,271	1,156,925	1,179,487	1,145,887	936,208	953,286	13,208,857	405,755,774
2017	1,492,216	906,043	1,123,788	1,197,556	1,049,899	1,426,931	1,168,068	1,576,200	928,859	1,428,789	863,212	1,231,949	14,393,510	420,149,284
2018	1,225,869	1,362,944	983,689	968,599	1,548,696	1,134,499	1,470,999	97,588	287,744	1,076,410	863,088	1,227,285	12,247,410	432,396,694
2019	1,589,576	1,274,721	1,562,495	1,217,017	1,343,215	1,222,569	1,222,569	1,063,488	1,114,585	1,141,511	902,426	755,511	14,409,683	446,806,377
2020	499,106	1,258,095	679,114	720,765	523,678	409,470	731,479	860,427	1,191,122	784,850	1,149,568	1,037,075	9,844,749	456,651,126
2021	859,906	937,650	981,620	951,290	1,260,945	914,353	1,355,500	1,152,711	1,016,565	1,269,408	1,061,188	1,017,492	12,778,628	469,429,754
2022	1,010,934	860,600	934,151	1,033,360	696,112	730,950	655,937	678,561	689,057	753,523	873,911	952,235	9,869,331	479,299,085
2023	834,090	740,594	857,184	667,247	578,855	599,752	542,249	689,459	375,278	465,640	409,367	398,990	7,158,705	486,457,790

Note: Treatment system modifications resulted in plant shutdown during the months of July 2013 and November 2015.

Table 2.4: Groundwater Extraction and Treatment System Operational Data

Year	Reporting Month	Reporting Period Interval		System Downtime (approximate) (days)	System Runtime ⁽¹⁾ (days)	Effluent Totalizer Reading (gallons)		Monthly System Throughput (gallons)	Average Flow Rate (gpm)
		Start Date	End Date			Start	End		
2023	January	1/3/2023	2/1/2023	0.46	29	103,939,377	104,773,467	834,090	20
	February	2/1/2023	3/1/2023	0.04	28	104,773,467	105,514,061	740,594	18
	March	3/1/2023	4/3/2023	0.25	33	105,514,061	106,371,245	857,184	18
	April	4/3/2023	5/2/2023	0.14	29	106,371,245	107,038,492	667,247	16
	May	5/2/2023	6/1/2023	0.03	30	107,038,492	107,617,347	578,855	13
	June	6/1/2023	7/6/2023	0.15	35	107,617,347	108,217,099	599,752	12
	July	7/6/2023	8/1/2023	0.78	25	108,217,099	108,759,348	542,249	15
	August	8/1/2023	9/5/2023	0.06	35	108,759,348	109,448,807	689,459	14
	September	9/5/2023	10/3/2023	0.00	28	109,448,807	109,824,085	375,278	9
	October	10/3/2023	11/2/2023	0.15	30	109,824,085	110,289,725	465,640	11
	November	11/2/2023	12/1/2023	0.02	29	110,289,725	110,699,092	409,367	10
	December	12/1/2023	1/3/2024	8.29	25	110,699,092	111,098,082	398,990	11

Notes:

⁽¹⁾ Calculated by subtracting system downtime in days from number of days in reporting period interval.

gpm = gallons per minute

Table 2.5: Total VOCs Extracted from Groundwater (lbs.)

Year	Calendar Month												Total Calendar Year (lbs.)	Cumulative Total (lbs.)
	January	February	March	April	May	June	July	August	September	October	November	December		
1998	-	-	-	-	-	-	-	104.7	24.5	42.4	26.6	35.0	233	233
1999	26.5	49.3	43.7	39.2	26.7	31.0	23.9	47.3	39.0	63.2	58.1	66.9	515	748
2000	57.5	47.2	62.3	58.7	43.7	50.0	40.8	41.5	33.9	34.6	42.7	49.9	563	1,311
2001	42.7	42.6	50.5	44.1	54.4	45.5	34.7	41.2	29.5	71.5	23.9	27.9	509	1,820
2002	28.1	26.0	28.3	43.4	42.5	44.8	40.5	38.5	37.3	36.9	42.3	42.8	451	2,271
2003	38.2	37.3	43.8	44.8	34.1	45.5	32.7	42.0	51.9	49.3	35.1	34.4	489	2,760
2004	29.7	31.3	39.2	42.0	34.6	32.6	32.1	31.6	26.9	36.0	26.8	34.3	397	3,157
2005	39.4	33.0	20.5	21.8	29.6	23.6	24.3	14.3	17.5	15.2	31.8	31.3	302	3,460
2006	33.8	28.5	27.2	29.0	40.2	44.1	13.1	14.1	24.4	40.1	40.4	23.1	358	3,818
2007	32.3	19.8	28.8	34.4	19.8	18.7	20.2	16.4	15.8	15.8	20.2	21.9	264	4,082
2008	23.9	24.3	34.0	30.6	22.7	14.7	11.8	24.7	21.8	24.8	24.1	25.3	283	4,364
2009	23.0	18.5	20.0	21.0	23.8	19.4	25.3	15.8	14.8	16.9	19.9	26.5	245	4,609
2010	19.0	19.4	30.6	23.6	15.1	13.9	12.0	9.8	13.7	21.8	18.0	30.4	227	4,836
2011	18.2	15.9	35.5	26.3	25.1	22.9	19.5	19.8	25.0	22.5	19.8	22.5	273	5,109
2012	18.5	18.6	18.0	18.8	24.0	5.4	27.5	39.6	12.8	29.2	23.9	17.0	253	5,363
2013	21.8	27.9	30.2	18.7	18.6	13.1	-	20.0	10.4	17.1	18.5	14.1	211	5,573
2014	7.5	11.0	25.1	18.1	26.1	15.6	13.0	40.3	7.0	8.9	14.0	10.7	197	5,770
2015	14.1	6.4	6.1	15.5	15.5	16.8	16.9	14.2	17.4	10.5	-	8.9	142	5,912
2016	24.0	19.1	18.0	32.1	14.4	17.6	14.1	9.5	9.5	13.4	8.6	16.1	196	6,109
2017	13.9	37.0	10.3	27.0	10.5	18.6	10.0	20.5	10.9	7.1	6.1	8.0	180	6,289
2018	25.1	21.5	10.8	20.6	18.1	14.1	13.5	7.8	9.2	23.9	15.5	18.7	199	6,487
2019	17.8	17.7	20.4	15.8	14.6	12.4	20.7	16.9	71.6	8.3	27.8	22.5	267	6,754
2020	9.8	23.4	10.0	20.2	13.2	22.2	20.3	7.5	14.5	9.1	25.9	14.1	190	6,944
2021	24.3	34.6	15.2	17.0	20.8	11.2	41.8	16.8	30.8	21.7	17.1	26.0	277	7,221
2022	10.4	6.9	11.3	15.9	9.4	38.0	9.8	9.4	7.4	11.8	15.3	15.3	161	7,382
2023	17.1	13.3	21.1	13.3	9.1	10.5	8.5	13.5	9.9	11.2	6.9	6.7	141	7,523

Notes:

VOCs Extracted calculated by multiplying site-specific VOC concentrations in monthly influent samples by monthly average flow rate and monthly system runtime (refer to Table 2.4).

Treatment system modifications resulted in plant shutdown during the months of July 2013 and November 2015.

lbs. = pounds

VOCs = volatile organic compounds

Table 2.6: Groundwater Extraction and Treatment System Performance Sampling Results


Parameter				1,2-DCE (total) ⁽¹⁾	PCE	TCE	Vinyl Chloride	Barium	Iron	Total Dissolved Solids
Units				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
New York State Class C Criteria				-	1 ⁽²⁾	40 ⁽³⁾	-	-	300 ⁽¹⁾	-
Location	Matrix	Date	Field Sample ID							
PS-Influent	L	1/3/2023	PS-Influent	530	1,400	460	13 J	42 J	130 J+	240
PS-Influent	L	2/1/2023	PS-Influent	594 J	1,100	390	9.2 J	42 J	120 J+	340
PS-Influent	L	3/1/2023	PS-Influent	704 J	1,800	370	12 J	37 J	120	270
PS-Influent	L	4/3/2023	PS-Influent	444 J	1,500	370	18 J	48 J	940	280
PS-Influent	L	5/2/2023	PS-Influent	420	1,100	290	9.2 J	31 J	82	30
PS-Influent	L	6/1/2023	PS-Influent	706 J	870	450	19 J	38 J	180	340
PS-Influent	L	7/6/2023	PS-Influent	583 J	920	330	14 J	40 J	130	350
PS-Influent	L	8/1/2023	PS-Influent	760	1,100	440	22	36 J	50 U	360
PS-Influent	L	9/5/2023	PS-Influent	1,100	1,400	580	27 J	46 J	280	330
PS-Influent	L	10/3/2023	PS-Influent	1,207 J	1,100	490	25 J	56	160 J+	460
PS-Influent	L	11/2/2023	PS-Influent	414	1,200	370	18	49 J	50 U	280
PS-Influent	L	12/1/2023	PS-Influent	744 J	1,800	600	16 J	54	110 J+	330
Air Stripper Eff	L	1/3/2023	PS-AS Effluent	2 U	1 U	1 U	2 U	42 J	120 J+	250
Air Stripper Eff	L	2/1/2023	PS-AS Effluent	2 U	1 U	1 U	2 U	47 J	130 J+	320
Air Stripper Eff	L	3/1/2023	PS-AS Effluent	0.19 J	0.19 J	1 U	2 U	35 J	93	330
Air Stripper Eff	L	4/3/2023	PS-AS Effluent	0.23 J	0.6 J	1 U	2 U	50 J	890	290
Air Stripper Eff	L	5/2/2023	PS-AS Effluent	2 U	1 U	1 U	2 U	37 J	260	130
Air Stripper Eff	L	6/1/2023	PS-AS Effluent	0.22 J	1 U	1 U	2 U	35 J	150	330
Air Stripper Eff	L	7/6/2023	PS-AS Effluent	0.42 J	1 U	1 U	2 U	35 J	110	350
Air Stripper Eff	L	8/1/2023	PS-AS Effluent	2 U	1 U	1 U	2 U	36 J	50 U	370
Air Stripper Eff	L	9/5/2023	PS-AS Effluent	2 U	0.18 J	1 U	2 U	47 J	250	310
Air Stripper Eff	L	10/3/2023	PS-AS Effluent	2 U	1 U	1 U	2 U	48 J	160 J+	420
Air Stripper Eff	L	11/2/2023	PS-AS Effluent	2 U	1 U	1 U	2 U	49 J	50 U	250
Air Stripper Eff	L	12/1/2023	PS-AS Effluent	0.2 J	1 U	1 U	2 U	53	160 J+	350

Notes:

⁽¹⁾ Result not reported by lab. Result is a calculated total of cis- and trans-1,2-dichloroethene.

⁽²⁾ Guidance Value

⁽³⁾ Standard

 = exceedance of standard/guidance value

Bold = positively detected result

" - " = no criteria

L = liquid

1,2-DCE = 1,2-dichloroethene

PCE = tetrachloroethene

TCE = trichloroethene

µg/L = micrograms per liter

mg/L = milligrams per liter

Qualifiers:

J = estimated value

J+ = estimated value, biased high

U = not detected

Table 2.7: LTM and Semiannual Groundwater Level Measurements

Well ID/ Sampling Location	Measurement Point Elevation (ft. msl)	Well Depth (ft.)	Monitoring Interval	Measurement Point Reference	Depth to Water 4/20/2023 (ft. btoc)	Groundwater Elevation 4/20/2023 (ft. amsl)	Depth to Water 10/16/2023 (ft. btoc)	Groundwater Elevation 10/16/2023 (ft. amsl)
Monitoring Wells								
CE-1 ⁽²⁾	224.91	535.00	bedrock	TOC	NM	NM	NM	NM
CE-2	224.95	287.00	bedrock	TOC	NM	NM	NM	NM
EW-3	259.67	295.00	bedrock	TOC	98.82	160.85	96.61	163.06
EW-4	256.01	322.00	bedrock	TOC	95.40	160.61	93.22	162.79
EW-5	259.85	235.20	bedrock	TOC	3.80	256.05	3.31	256.54
EW-8	223.93	318.00	bedrock	TOC	77.08	146.85	69.94	153.99
EW-10	234.09	225.00	unknown	TOC	NM	NM	12.63	221.46
EW-11	231.40	172.20	bedrock	TOC	NM	NM	62.52	168.88
EW-12	232.76	270.50	bedrock	TOC	NM	NM	52.46	180.30
EW-13	217.06	360.00	bedrock	TOC	NM	NM	43.65	173.41
EW-15	236.37	275.00	unknown	TOC	NM	NM	9.06	227.31
IW-8	239.47	391.80	bedrock	TOC	72.32	167.15	76.89	162.58
IW-9	224.37	358.10	bedrock	TOC	64.60	159.77	62.25	162.12
IW-10 ⁽⁴⁾	235.57	176.30	bedrock	TOC	6.52	229.05	6.29	229.28
M-4	232.19	200.00	bedrock	TOC	NM	NM	63.22	168.97
M-5	213.88	200.00	bedrock	TOC	NM	NM	40.80	173.08
M-6	248.31	100.00	bedrock	TOC	NM	NM	NM ⁽⁵⁾	NM ⁽⁵⁾
M-8	261.57	200.00	bedrock	TOC	12.69	248.88	12.38	249.19
M-9	256.39	200.00	bedrock	TOC	82.78	173.61	80.48	175.91
Mueller	183.25	114.00	bedrock	TOC	NM	NM	14.75	168.50
MW-104	258.00	81.60	overburden	TOC	NM	NM	26.60	231.40
MW-108	254.72	86.10	overburden	TOC	NM	NM	19.62	235.10
MW-109	255.96	87.50	overburden	TOC	NM	NM	17.59	238.37
MW-112	256.60	25.10	overburden	TOC	NM	NM	3.71	252.89
MW-113	257.38	25.00	overburden	TOC	NM	NM	6.69	250.69
Active Bedrock Extraction Wells								
EW-2 ⁽¹⁾	255.29	322.00	bedrock	TOC/PLC	NM	172.02 ⁽³⁾	31.30	174.29 ⁽³⁾
EW-6	242.94	325.00	bedrock	TOC/PLC	NM	170.60 ⁽³⁾	NM ⁽⁶⁾	NM ⁽⁷⁾

Table 2.7: LTM and Semiannual Groundwater Level Measurements

Well ID/ Sampling Location	Measurement Point Elevation (ft. msl)	Well Depth (ft.)	Monitoring Interval	Measurement Point Reference	Depth to Water 4/20/2023 (ft. btoc)	Groundwater Elevation 4/20/2023 (ft. amsl)	Depth to Water 10/16/2023 (ft. btoc)	Groundwater Elevation 10/16/2023 (ft. amsl)
Active Bedrock Extraction Wells (continued)								
EW-7	251.64	227.00	bedrock	TOC/PLC	NM	67.00 ⁽³⁾	63.00	97.00 ⁽³⁾
EW-9	236.21	365.00	bedrock	TOC/PLC	NM	165.73 ⁽³⁾	NM ⁽⁸⁾	167.18 ⁽³⁾
EW-16	248.16	417.00	bedrock	TOC/PLC	NM	75.41 ⁽⁹⁾	37.40	75.62 ⁽⁹⁾
Active Overburden Extraction Wells								
OW-2	257.03	30.00	overburden	TOC/PLC	NM	245.01 ⁽³⁾	16.36	245.01 ⁽³⁾
OW-3	256.81	25.00	overburden	TOC/PLC	NM	239.06 ⁽³⁾	8.80	248.66 ⁽³⁾
OW-5	258.20	30.00	overburden	TOC/PLC	NM	251.07 ⁽³⁾	17.56	250.98 ⁽³⁾
OW-7	254.57	25.00	overburden	TOC/PLC	NM	237.01 ⁽³⁾	5.40	250.06 ⁽³⁾
OW-13	259.95	29.50	overburden	TOC/PLC	NM	252.02 ⁽³⁾	22.04	252.03 ⁽³⁾
OW-14	261.24	30.00	overburden	TOC/PLC	NM	261.47 ⁽³⁾	7.80	260.72 ⁽³⁾
OW-16	259.81	30.00	overburden	TOC/PLC	NM	248.92 ⁽³⁾	37.40	248.84 ⁽³⁾

Notes:

- ⁽¹⁾ Water levels measured under pumping conditions with EW-2 and EW-9 offline. EW-2 has been off-line since September 2020 due to electrical and mechanical issues. EW-9 has been off-line since April 2023 due to a presumed failed pump.
- ⁽²⁾ CE-1 not in service; acts as emergency backup well to CE-2 for Country Estates.
- ⁽³⁾ Measurement collected from extraction well control panel.
- ⁽⁴⁾ Measurements not included in potentiometric surface figures as it represents shallow bedrock that is not hydraulically connected to the bedrock aquifer monitored by other wells.
- ⁽⁵⁾ Could not remove dedicated well cap to collect depth to water measurement.
- ⁽⁶⁾ Water level meter tangled with well extraction equipment and wouldn't advance past 65 feet. Depth to water was not reached.
- ⁽⁷⁾ No power at control panel due to non-functioning uninterrupted power supply unit. Therefore, no groundwater elevation displayed on human machine interface screen to record.
- ⁽⁸⁾ Particles present in groundwater caused water level meter to not function properly.
- ⁽⁹⁾ Level transmitter not functioning properly. Value recorded from human machine interface screen not representative of actual groundwater elevation.

btoc = below top of casing

ft. = feet

amsl = above mean sea level

LTM = long-term monitoring

NM = not measured

PLC = programmable logic controller

TOC = top of casing

Table 2.8: Groundwater Monitoring Results – Site-Specific Contaminants of Concern

Parameter			1,2-DCE (total)	Cis-1,2- DCE	Trans-1,2- DCE	PCE	TCE	Vinyl Chloride
Units			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
New York State Class GA Standard			5	5	5	5	5	2
Location	Sample Date	Sample ID						
CE-2	11/14/2023	CE-2 BEF	2 U	1 U	1 U	1.1	0.29 J	2 U
EW-3	10/17/2023	EW-3	2.7	2.7	1 U	1 U	1 U	9.7
EW-4	10/17/2023	EW-4	5.2	5.2	1 U	1 U	1 U	12
EW-5	10/17/2023	EW-5	211 J	210	1.3 J	150	63	6.8
EW-7	10/18/2023	EW-7	235	230	5	40	27	4 J
EW-8	10/17/2023	EW-8	3.2 J	2.7	0.48 J	1 U	1 U	2.2
EW-11	10/17/2023	EW-11	2.3	2.3	1 U	1 U	1 U	2 U
EW-12	10/17/2023	EW-12	0.35 J	0.35 J	1 U	2.5	0.28 J	2 U
EW-13	10/17/2023	EW-13	2.8	2.8	1 U	27	2.6	2 U
EW-16	10/18/2023	EW-16	1,000	1,000	25 U	2,100	1,200	18 J
IW-8	10/17/2023	IW-8	2 U	1 U	1 U	1 U	0.86 J	2 U
IW-9	10/17/2023	IW-9	17	17	1 U	6.6	2.2	1.2 J
IW-10	10/17/2023	IW-10	1.8	1.8	1 U	0.28 J	0.61 J	2 U
M-4	10/17/2023	M-4	2 U	1 U	1 U	1 U	1 U	2 U
M-5	10/17/2023	M-5	11	11	1 U	1 U	1 U	4.6
M-6	10/17/2023	M-6	2 U	1 U	1 U	1 U	1 U	2 U
M-8	10/17/2023	M-8	0.67 J	0.35 J	0.32 J	1 U	1 U	0.32 J
M-9	10/17/2023	M-9	2 U	1 U	1 U	1 U	1 U	2 U
MUELLER	10/17/2023	Mueller	0.41 J	0.41 J	1 U	1 U	1 U	2 U
MW-104	10/17/2023	MW-104	2 U	1 U	1 U	1 U	1 U	2 U
MW-109	10/17/2023	MW-109	2 U	1 U	1 U	1 U	1 U	2 U
MW-112	10/17/2023	MW-112	0.86 J	0.86 J	1 U	1 U	0.94 J	2 U
MW-113	10/17/2023	MW-113	15 J	15 J	20 U	1,900	11 J	40 U
OW-2	10/18/2023	OW-2	130	130	20 U	1,200	26	40 U
OW-3	10/18/2023	OW-3	230	230	100 U	11,000	200	200 U
OW-5	10/18/2023	OW-5	850	850	40 U	3,000	220	80 U
OW-14	10/18/2023	OW-14	1,000	1,000	40 U	2,500	830	34 J
OW-16	10/18/2023	OW-16	180	180	5 U	310	50	3.4 J

Notes:

1,2-DCE (total) result not reported by lab. Result is a calculated total of cis- and trans-1,2-DCE.

= exceedance of standard

Bold = positively detected result

1,2-DCE = 1,2-dichloroethene

cis-1,2-DCE = cis-1,2-dichloroethene

PCE = tetrachloroethene

TCE = trichloroethene

Trans-1,2-DCE = trans-1,2-dichloroethene

µg/L = micrograms per liter

Qualifiers:

J = estimated value

U = not detected

APPENDIX A

HISTORICAL GROUNDWATER RESULTS – SITE VOCS

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride		
NYS Class GA Standard					5	5	5	5	5	2		
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
CE-1	10/1/2008	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	10/1/2008	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	11/3/2008	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	11/3/2008	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	12/1/2008	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	12/1/2008	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	1/5/2009	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	1/5/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	3/16/2009	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	3/16/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	4/6/2009	CE-1 BEF	FS	µg/L	2 U, N1		1 U, N1		1 U, N1		1 U, N1	
CE-1	4/6/2009	CE-1 BET	FS	µg/L	2 U, N1		1 U, N1		1 U, N1		1 U, N1	
CE-1	5/5/2009	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	5/5/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	7/6/2009	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	7/6/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	8/4/2009	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	8/4/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	9/14/2009	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	9/14/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	10/5/2009	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	10/5/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	11/3/2009	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	11/3/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	11/3/2009	BLIND DUP	FD	µg/L	2 U		1 U		1 U		1 U	
CE-1	12/2/2009	CE-1 BEF	FS	µg/L	2 U		1 U		0.41 J		1 U	
CE-1	12/2/2009	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	1/5/2010	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	1/5/2010	CE-1 BET	FS	µg/L	2 U		1 U		0.4 J		1 U	
CE-1	3/22/2010	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	3/22/2010	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	4/6/2010	CE-1 AFT	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	4/6/2010	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	4/6/2010	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	4/6/2010	BLIND DUP 1	FD	µg/L	2 U		1 U		1 U		1 U	
CE-1	7/6/2010	CE-1 AFT	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	7/6/2010	CE-1 BEF	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	7/6/2010	CE-1 BET	FS	µg/L	2 U		1 U		1 U		1 U	
CE-1	10/5/2010	CE-1 AFT	FS	µg/L	2 U		1 U		1 U		1 U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride		
NYS Class GA Standard					5	5	5	5	5	2		
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
CE-1 (continued)	10/5/2010	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	10/5/2010	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	1/3/2011	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	2	
CE-1	1/3/2011	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	0.69	J
CE-1	1/3/2011	CE-1 BET	FS	µg/L	2	U	1	U	1	U	0.57	J
CE-1	3/31/2011	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	3/31/2011	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	3/31/2011	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/4/2011	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/4/2011	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/4/2011	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/11/2011	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/11/2011	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/11/2011	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/18/2011	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/18/2011	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/18/2011	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/25/2011	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/25/2011	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/25/2011	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	7/5/2011	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	7/5/2011	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	7/5/2011	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	10/4/2011	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	10/4/2011	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	10/4/2011	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	1/3/2012	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	1/3/2012	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	1/3/2012	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/2/2012	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/2/2012	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/2/2012	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	5/2/2012	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	5/2/2012	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	5/2/2012	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	6/5/2012	CE-1 AFT 6/5/2012	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	6/5/2012	CE-1 BEF 6/5/2012	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	6/5/2012	CE-1 BET 6/5/2012	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	7/3/2012	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride		
NYS Class GA Standard					5	5	5	5	5	2		
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
CE-1 (continued)	7/3/2012	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	7/3/2012	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	8/6/2012	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	8/6/2012	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	8/6/2012	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	10/1/2012	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	10/1/2012	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	10/1/2012	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	1/7/2013	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	1/7/2013	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	1/7/2013	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/1/2013	CE-1 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/1/2013	CE-1 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	4/1/2013	CE-1 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-1	12/18/2014	CE-1	FS	µg/L	2	U	1	U	2.5		0.57	J
CE-1	3/30/2016	CE-1	FS	µg/L	5.9		5.9		1	U	0.81	J
CE-2	10/1/2008	CE-2 BEF	FS	µg/L	2	U	1	U	7.2		1.7	
CE-2	10/1/2008	CE-2 BET	FS	µg/L	1.4	J	1.4		0.59	J	1	U
CE-2	11/3/2008	CE-2 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	11/3/2008	CE-2 BET	FS	µg/L	1.3	J	1.3		1	U	1	U
CE-2	12/1/2008	CE-2 BEF	FS	µg/L	2	U	1	U	3.4		0.88	J
CE-2	12/1/2008	CE-2 BET	FS	µg/L	1.1	J	1.1		0.74	J	0.69	J
CE-2	1/5/2009	CE-2 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	1/5/2009	CE-2 BET	FS	µg/L	1.1	J	1.1		1	U	0.56	J
CE-2	1/5/2009	BLIND DUP	FD	µg/L	2	U	1	U	2.6		0.66	J
CE-2	2/2/2009	CE-2 BEF	FS	µg/L	2	U	1	U	3		1.1	
CE-2	2/2/2009	CE-2 BET	FS	µg/L	0.82	J	0.82	J	1	U	0.54	J
CE-2	3/2/2009	CE-2 BEF	FS	µg/L	2	U	1	U	0.77	J	1	U
CE-2	3/2/2009	CE-2 BET	FS	µg/L	2	U	0.7	J	1	U	0.67	J
CE-2	4/6/2009	CE-2 BEF	FS	µg/L	2	U, N1	1	U, N1	1.5	N1	0.51	N1,J
CE-2	4/6/2009	CE-2 BET	FS	µg/L	2	U, N1	0.59	N1,J	1	U, N1	0.46	N1,J
CE-2	5/5/2009	CE-2 BEF	FS	µg/L	2	U	1	U	2		0.65	J
CE-2	5/5/2009	CE-2 BET	FS	µg/L	2	U	0.65	J	1	U	0.64	J
CE-2	6/9/2009	CE-2 BEF	FS	µg/L	2	U	1	U	5.1		1.4	
CE-2	6/9/2009	CE-2 BET	FS	µg/L	2	U	1	U	0.67	J	0.65	J
CE-2	7/6/2009	CE-2 BEF	FS	µg/L	2	U	1	U	2.5		0.79	J
CE-2	7/6/2009	CE-2 BET	FS	µg/L	2	U	0.5	J	1	U	0.76	J
CE-2	8/4/2009	CE-2 BEF	FS	µg/L	2	U	1	U	0.84	J	1	U
CE-2	8/4/2009	CE-2 BET	FS	µg/L	2	U	1	U	0.72	J	0.72	J

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride					
NYS Class GA Standard					5	5	5	5	5	2					
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier			
CE-2 (continued)	9/14/2009	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		5.4		1.5		1 U
CE-2	9/14/2009	CE-2 BET	FS	µg/L	2 U		1 U		1 U		0.88 J		0.82 J		1 U
CE-2	9/14/2009	BLIND DUP	FD	µg/L	2 U		1 U		1 U		5.4		1.6		1 U
CE-2	10/5/2009	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		6		1.5		1 U
CE-2	10/5/2009	CE-2 BET	FS	µg/L	2 U		1 U		1 U		0.95 J		0.9 J		1 U
CE-2	10/5/2009	BLIND DUP	FD	µg/L	2 U		1 U		1 U		0.96 J		0.93 J		1 U
CE-2	11/16/2009	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		2.2		1 U		1 U
CE-2	11/16/2009	CE-2 BET	FS	µg/L	2 U		0.6 J		1 U		1.1		0.89 J		1 U
CE-2	12/2/2009	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		1.8		0.6 J		1 U
CE-2	12/2/2009	CE-2 BET	FS	µg/L	2 U		0.48 J		1 U		1.2		1.1		1 U
CE-2	1/5/2010	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		1.8		1 U		1 U
CE-2	1/5/2010	CE-2 BET	FS	µg/L	2 U		1 U		1 U		1.3		0.86 J		1 U
CE-2	4/21/2010	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/21/2010	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		2.1		0.68 J		1 U
CE-2	4/21/2010	CE-2 BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	7/6/2010	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	7/6/2010	CE-2 BEF	FS	µg/L	3.1		3.1		1 U		80		8.2		1 U
CE-2	7/6/2010	CE-2 BET	FS	µg/L	2 U		1 U		1 U		0.6 J		1 U		1 U
CE-2	10/5/2010	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	10/5/2010	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		11		1.8		1 U
CE-2	10/5/2010	CE-2 BET	FS	µg/L	1.3 J		1.3		1 U		2.7		0.88 J		1 U
CE-2	1/3/2011	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	1/3/2011	CE-2 BEF	FS	µg/L	1.1 J		1.1		1 U		2.6		0.81 J		1 U
CE-2	1/3/2011	CE-2 BET	FS	µg/L	2 U		1 U		1 U		2.6		0.67 J		1 U
CE-2	1/3/2011	BLIND DUP 1	FD	µg/L	2 U		1 U		1 U		2.3		0.58 J		1 U
CE-2	3/31/2011	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	3/31/2011	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		1.7		0.47 J		1 U
CE-2	3/31/2011	CE-2 BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/4/2011	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/4/2011	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		1.7		1 U		1 U
CE-2	4/4/2011	CE-2 BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/11/2011	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/11/2011	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		1.5		1 U		1 U
CE-2	4/11/2011	CE-2 BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/18/2011	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/18/2011	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		1.4		1 U		1 U
CE-2	4/18/2011	CE-2 BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/25/2011	CE-2 AFT	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U
CE-2	4/25/2011	CE-2 BEF	FS	µg/L	2 U		1 U		1 U		1.3		1 U		1 U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride		
NYS Class GA Standard					5	5	5	5	5	2		
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
CE-2 (continued)	4/25/2011	CE-2 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	7/5/2011	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	7/5/2011	CE-2 BEF	FS	µg/L	2	U	1	U	2.8		1.2	
CE-2	7/5/2011	CE-2 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	7/5/2011	BLIND DUP	FD	µg/L	2	U	1	U	1	U	1	U
CE-2	10/4/2011	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	10/4/2011	CE-2 BEF	FS	µg/L	2	U	1	U	1.7		1	U
CE-2	10/4/2011	CE-2 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	10/4/2011	BLIND DUP	FD	µg/L	2	U	1	U	1	U	1	U
CE-2	1/3/2012	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	1/3/2012	CE-2 BEF	FS	µg/L	2	U	1	U	1.1		1	U
CE-2	1/3/2012	CE-2 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	4/2/2012	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	4/2/2012	CE-2 BEF	FS	µg/L	2	U	1	U	2		0.73 J	
CE-2	4/2/2012	CE-2 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	5/2/2012	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	5/2/2012	CE-2 BEF	FS	µg/L	2	U	1	U	0.45 J		1	U
CE-2	5/2/2012	CE-2 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	6/5/2012	CE-2 AFT 6/5/2012	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	6/5/2012	CE-2 BEF 6/5/2012	FS	µg/L	2	U	1	U	1.7		0.49 J	
CE-2	6/5/2012	CE-2 BET 6/5/2012	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	7/3/2012	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	7/3/2012	CE-2 BEF	FS	µg/L	2	U	1	U	5.9		1.2	
CE-2	7/3/2012	CE-2 BET	FS	µg/L	2	U	1	U	0.65 J		1	U
CE-2	8/6/2012	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	8/6/2012	CE-2 BEF	FS	µg/L	1.9 J		1.9		67		8.3	
CE-2	8/6/2012	CE-2 BET	FS	µg/L	2	U	1	U	6.7		1.1	
CE-2	10/1/2012	CE-2 AFT	FS	µg/L	2	U	1	U	0.42 J		1	U
CE-2	10/1/2012	CE-2 BEF	FS	µg/L	2	U	1	U	4.3		1	
CE-2	10/1/2012	CE-2 BET	FS	µg/L	2	U	1	U	1.5		0.59 J	
CE-2	1/15/2013	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	1/15/2013	CE-2 BEF	FS	µg/L	2	U	1	U	1.5		1	U
CE-2	1/15/2013	CE-2 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	4/1/2013	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	4/1/2013	CE-2 BEF	FS	µg/L	2	U	1	U	1		1	U
CE-2	4/1/2013	CE-2 BET	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	10/15/2013	CE-2 BEF	FS	µg/L	0.41 J		0.41 J		41		4.2	
CE-2	12/18/2014	CE-2	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	4/1/2016	CE-2	FS	µg/L	2	U	1	U	1.7		0.49 J	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride		
NYS Class GA Standard					5	5	5	5	5	2		
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
CE-2 (continued)	6/21/2017	CE-2 BEF	FS	µg/L	2	UJ	1	UJ	1.3	J	1	UJ
CE-2	10/31/2018	CE-2 BEF	FS	µg/L	2	UJ	1	UJ	1.6	J	0.52	J
CE-2	1/22/2020	CE-2	FS	µg/L	1.4	J	1.4		1	U	1.3	
CE-2	4/19/2021	CE-2 BEF	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	8/1/2022	CE-2 BEF	FS	µg/L	2.7		2.7		1	U	10.9	
CE-2	10/17/2023	CE-2 AFT	FS	µg/L	2	U	1	U	1	U	1	U
CE-2	11/14/2023	CE-2 BEF	FS	µg/L	2	U	1	U	1.1		0.29	J
EW-1	4/9/2009	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	10/19/2009	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	1/5/2010	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	4/7/2010	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	7/7/2010	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	10/4/2010	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	1/3/2011	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	4/6/2011	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	7/5/2011	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	10/4/2011	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	6/6/2012	420006-EW1-080 6/6/2012	FS	µg/L	2	U	1	U	1	U	1	U
EW-1	6/6/2012	420006-EW1-123 6/6/2012	FS	µg/L	2	U	1	U	0.53	J	1	U
EW-1	6/6/2012	420006-EW1-184 6/6/2012	FS	µg/L	2	U	1	U	0.43	J	1	U
EW-1	10/5/2012	EW-1	FS	µg/L	2	U	1	U	1	U	1	U
EW-2	10/2/2008	EW-2	FS	µg/L	40		40		1	U	240	
EW-2	12/17/2008	EW-2	FS	µg/L	38		38		1	U	240	
EW-2	12/17/2008	BLIND DUP	FD	µg/L	43		43		1	U	310	
EW-2	1/12/2009	EW-2	FS	µg/L	34	D08	34	D08	4	U,D08	250	D08
EW-2	1/12/2009	BLIND DUP	FD	µg/L	200	U,D08	100	U,D08	100	U,D08	100	U,D08
EW-2	4/6/2009	EW-2	FS	µg/L	33	D08, N1	31	D08, N1	1.6	D08,N1,J	150	D08, N1
EW-2	7/6/2009	EW-2	FS	µg/L	35	D08	33	D08	1.9	D08,J	150	D08
EW-2	10/5/2009	EW-2	FS	µg/L	49	D08	46	D08	2.2	D08,J	220	D08
EW-2	1/6/2010	EW-2	FS	µg/L	49	D08	47	D08	2.4	D08,J	510	D08
EW-2	4/7/2010	EW-2	FS	µg/L	69	D08	65	D08	3.3	D08	240	D08
EW-2	7/7/2010	EW-2	FS	µg/L	45	D08	41	D08	4.1	D08	230	D08
EW-2	10/4/2010	EW-2	FS	µg/L	170	D08	170	D08	4	U, D08	320	D08
EW-2	1/3/2011	EW-2	FS	µg/L	130		130		2.7		270	
EW-2	4/6/2011	EW-2	FS	µg/L	210		210		4.1		160	
EW-2	7/5/2011	EW-2	FS	µg/L	73		70		3.1		230	
EW-2	10/4/2011	EW-2	FS	µg/L	86		86		4	U	270	
EW-2	1/3/2012	EW-2	FS	µg/L	72		70		2.3		290	
EW-2	6/6/2012	420006-EW2-110 6/6/2012	FS	µg/L	500		500		200	U	11000	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
EW-2 (continued)	6/6/2012	420006-EW2-188 6/6/2012	FS	µg/L	460		460		200 U		11000		2300		200 U	
EW-2	6/6/2012	420006-EW2-225 6/6/2012	FS	µg/L	480		480		200 U		12000		2400		200 U	
EW-2	6/6/2012	420006-EW2-313 6/6/2012	FS	µg/L	360		360		200 U		10000 J		1800		200 U	
EW-2	7/18/2012	420006-EW02-310	FS	µg/L	1407		1400		6.8		6000		1700		5.2	
EW-2	10/2/2012	EW-2	FS	µg/L	130		130		5 U		280		56		6.4	
EW-2	4/16/2013	EW-2	FS	µg/L	53		50		2.7		58		6.4		3.8	
EW-2	10/15/2013	EW-2	FS	µg/L	150		150		3.9		86		15		3.7	
EW-2	12/15/2014	EW-2	FS	µg/L	260		260		5 U		190		54		15	
EW-2	3/30/2016	EW-2	FS	µg/L	130		130		5 U		120		15		14	
EW-2	6/20/2017	EW-2	FS	µg/L	61		61		1 U		52		7.1		12	
EW-2	10/31/2018	EW-2	FS	µg/L	190		190		4 U		150		16		18	
EW-3	4/29/2013	EW-3-125	FS	µg/L	13		12		0.97 J		1 U		1 U		1 U	
EW-3	4/29/2013	EW-3200	FS	µg/L	17		16		1.3		1 U		1 U		1 U	
EW-3	4/29/2013	EW-3275	FS	µg/L	23		21		1.9		1 U		1 U		1 U	
EW-3	11/5/2013	EW-3	FS	µg/L	55		50		4.5		1 U		9		3.3	
EW-3	12/17/2014	EW-3	FS	µg/L	30		30		1 U		1 U		1 U		6.1	
EW-3	3/29/2016	EW-3	FS	µg/L	39		38		0.95 J		1 U		0.83 J		6.3	
EW-3	6/21/2017	EW-3	FS	µg/L	6.8		6.8		1 U		1 U		1 U		3.7	
EW-3	10/30/2018	EW-3	FS	µg/L	8.6		8.6		1 U		1 U		1 U		9.7	
EW-3	1/23/2020	EW-3	FS	µg/L	5.1		5.1		1 U		1 U		1 U		4.6	
EW-3	4/21/2021	EW-3	FS	µg/L	3.5		3.5		1 U		1 U		1 U		5.4	
EW-3	7/20/2022	EW-3	FS	µg/L	5.3 J		5.3 J		1 U		1 U		1 U		4.8	
EW-3	10/17/2023	EW-3	FS	µg/L	2.7		2.7		1 U		1 U		1 U		9.7	
EW-4	6/6/2012	420006-EW4-125 6/6/2012	FS	µg/L	3.1		3.1		1 U		1 U		1 U		1 U	
EW-4	6/6/2012	420006-EW4-178 6/6/2012	FS	µg/L	10.2		8.2		2		1 U		1 U		1 U	
EW-4	6/6/2012	420006-EW4-258 6/6/2012	FS	µg/L	14		11		2.9		1 U		1 U		1 U	
EW-4	6/6/2012	420006-EW4-302 6/6/2012	FS	µg/L	16		13		2.6		0.44 J		1 U		1 U	
EW-4	4/29/2013	EW-4302	FS	µg/L	13		10		2.8		1 U		1 U		1 U	
EW-4	11/5/2013	EW-4	FS	µg/L	44		42		2.3		1 U		13		1.8	
EW-4	12/17/2014	EW-4	FS	µg/L	16		13		2.8		1 U		1 U		1 U	
EW-4	3/29/2016	EW-4	FS	µg/L	17		14		3.2		1 U		1 U		1 U	
EW-4	6/21/2017	EW-4	FS	µg/L	11		8.4		2.7		1 U		1 U		1 U	
EW-4	10/30/2018	EW-4	FS	µg/L	9.6		8.1		1.5		1 U		1 U		1 U	
EW-4	7/21/2020	EW-4	FS	µg/L	5.7		4.6		1.1		1 U		1 U		1 U	
EW-4	4/21/2021	EW-4	FS	µg/L	8.2		6.8		1.4		1 U		1 U		1 U	
EW-4	7/20/2022	EW-4	FS	µg/L	5.7		5.7		1 U		1 U		1 U		1	
EW-4	10/17/2023	EW-4	FS	µg/L	5.2		5.2		1 U		1 U		1 U		12	
EW-5	6/6/2012	420006-EW5-150 6/6/2012	FS	µg/L	210		210		20 U		890		130		20 U	
EW-5	6/6/2012	420006-EW5-202 6/6/2012	FS	µg/L	200		200		10 U		610		100		10 U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
EW-5 (continued)	6/6/2012	420006-EW5-283 6/6/2012	FS	µg/L	190		190		4 U		150		49		4 U	
EW-5	7/12/2012	420006-EW05-280	FS	µg/L	335		330		5.1		5 U		3.7 J		5 U	
EW-5	4/29/2013	EW-5150	FS	µg/L	120		120		1 U		260		55		1 U	
EW-5	11/5/2013	EW-5	FS	µg/L	1100		1100		3.9		38		27		2 U	
EW-5	12/17/2014	EW-5	FS	µg/L	45		45		4 U		200		18		4 U	
EW-5	10/5/2015	EW-5	FS	µg/L	170		170 F1		4 U		290 F1		80		4 U	
EW-5	3/29/2016	EW-5	FS	µg/L	300		300		4 U		330		120		4.6	
EW-5	6/21/2017	EW-5	FS	µg/L	310		310		4 U		600 J		120		7	
EW-5	10/30/2018	EW-5	FS	µg/L	260		260		8 U		340		88		9.1	
EW-5	1/23/2020	EW-5	FS	µg/L	210		210		8 U		200		64		8 U	
EW-5	4/21/2021	EW-5	FS	µg/L	240		240		8 U		150		67		8 U	
EW-5	7/20/2022	EW-5	FS	µg/L	260		258		2.4		182		67		8.7	
EW-5	10/17/2023	EW-5	FS	µg/L	211 J		210		1.3 J		150		63		6.8	
EW-6	10/2/2008	EW-6	FS	µg/L	84		84		1 U		320		74		1.2 U	
EW-6	12/17/2008	EW-6	FS	µg/L	69		69		1 U		440		84		1.2 U	
EW-6	1/12/2009	EW-6	FS	µg/L	78 D08		78 D08		5 U,D08		310 D08		65 D08		5 U,D08	
EW-6	4/8/2009	EW-6	FS	µg/L	100 D08		98 D08		1.6 D08,J		370 D08		90 D08		5 U, D08	
EW-6	10/5/2009	EW-6	FS	µg/L	120 D08		120 D08		1.4		410 D08		130 D08		1 U	
EW-6	4/7/2010	EW-6	FS	µg/L	120 D08		120 D08		5 U, D08		270 D08		73 D08		5 U, D08	
EW-6	10/4/2010	EW-6	FS	µg/L	110 D08		110 D08		5 U, D08		260 D08		65 D08		5 U, D08	
EW-6	4/6/2011	EW-6	FS	µg/L	290		290		2.6		1300		280		2.1	
EW-6	10/4/2011	EW-6	FS	µg/L	180		180		5 U		380		160		5 U	
EW-6	10/2/2012	EW-6	FS	µg/L	330		330		5 U		580		220		5 U	
EW-6	4/16/2013	EW-6	FS	µg/L	220		220		8 U		550		150		8 U	
EW-6	10/15/2013	EW-6	FS	µg/L	180		180		4.1 J		390		140		5 U	
EW-6	12/18/2014	EW-6	FS	µg/L	300		300		8 U		390		120		8 U	
EW-6	3/30/2016	EW-6	FS	µg/L	200		200		8 U		690		180		8 U	
EW-6	6/20/2017	EW-6	FS	µg/L	160		160		8 U		730		170		8 U	
EW-6	10/31/2018	EW-6	FS	µg/L	130		130		10 U		730		140		10 U	
EW-6	1/22/2020	EW-6	FS	µg/L	150		150		10 U		570		150		9.2 J	
EW-6	4/20/2021	EW-6	FS	µg/L	790		790		15		8 U		8 U		21	
EW-6	7/20/2022	EW-6	FS	µg/L	175		171		3.3		446		135		13.4	
EW-7	10/2/2008	EW-7	FS	µg/L	720		710		8.8		78		66		2.4 U	
EW-7	12/17/2008	EW-7	FS	µg/L	500		490		5.3		660		280		2.4 U	
EW-7	1/12/2009	EW-7	FS	µg/L	1200 D08		1200 D08		20 U,D08		2200 H2,D08		1500 D08		20 U,D08	
EW-7	4/8/2009	EW-7	FS	µg/L	660 D08, N1		650 D08, N1		8 D08,N1,J		2400 D08, N1		1300 D08, N1		20 U,D08,N1	
EW-7	7/6/2009	EW-7	FS	µg/L	1200 D08		1200 D08		20 U, D08		3800 D08		1900 D08		20 U, D08	
EW-7	10/5/2009	EW-7	FS	µg/L	720 D08		710 D08		11 D08		18 D08		49 D08		10 U, D08	
EW-7	1/6/2010	EW-7	FS	µg/L	530 D08		520 D08		9.4 D08		7 D08,J		19 D08		8 U, D08	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
EW-7 (continued)	4/7/2010	EW-7	FS	µg/L	870	D08	870	D08	7	D08,J	2000	D08	970	D08	8	U, D08
EW-7	7/7/2010	EW-7	FS	µg/L	460	D08	450	D08	11	D08	8	U, D08	27	D08	8	U, D08
EW-7	7/7/2010	BLIND DUP	FD	µg/L	440	D08	430	D08	11	D08	8	U, D08	27	D08	8	U, D08
EW-7	10/4/2010	EW-7	FS	µg/L	490	D08	480	D08	12	D08	8.4	D08,J	26	D08	10	U, D08
EW-7	1/3/2011	EW-7	FS	µg/L	590		580		10		66		79		1	U
EW-7	4/18/2011	EW-7	FS	µg/L	680		670		12		730		310		1	U
EW-7	10/4/2011	EW-7	FS	µg/L	710		710		10	U	1400		650		10	U
EW-7	10/2/2012	EW-7	FS	µg/L	860		860		20	U	990		570		20	U
EW-7	4/16/2013	EW-7	FS	µg/L	480		470		11		260		110		10	U
EW-7	10/15/2013	EW-7	FS	µg/L	480		470		9.2		65		34		6.7	U
EW-7	3/30/2016	EW-7	FS	µg/L	950		940		9.1	J	3700		1800		10	U
EW-7	6/20/2017	EW-7	FS	µg/L	1300		1300		40	U	2600		1200		40	U
EW-7	10/31/2018	EW-7	FS	µg/L	1300		1300		100	U	6900		2200		14	
EW-7	1/22/2020	EW-7	FS	µg/L	1200		1200		100	U	3900		1400		100	U
EW-7	4/20/2021	EW-7	FS	µg/L	890		890		100	U	4200		1400		100	U
EW-7	7/20/2022	EW-7	FS	µg/L	304		292		11.7		6.5		6.4		9.7	
EW-7	10/18/2023	EW-7	FS	µg/L	235		230		5		40		27		4	J
EW-8	4/29/2013	EW-8100	FS	µg/L	1.2	J	1.2		1	U	1	U	1	U	1	U
EW-8	4/29/2013	EW-8200	FS	µg/L	4.3		4.3		1	U	0.82	J	0.95	J	1	U
EW-8	4/29/2013	EW-8300	FS	µg/L	3.7		3.7		1	U	0.45	J	0.55	J	1	U
EW-8	11/5/2013	EW-8	FS	µg/L	3.9		3.9		1	U	1	U	1	U	1	U
EW-8	12/17/2014	EW-8	FS	µg/L	2.8		2.8		1	U	1	U	1	U	1	U
EW-8	3/29/2016	EW-8	FS	µg/L	4.1		4.1		1	U	1	U	1	U	1	U
EW-8	6/21/2017	EW-8	FS	µg/L	4		4		1	U	1	U	1	U	1	U
EW-8	10/30/2018	EW-8	FS	µg/L	1.9	J	1.9		1	U	1	U	0.53	J	1	
EW-8	1/23/2020	EW-8	FS	µg/L	3.5		3.5		1	U	1	U	1	U	1.1	
EW-8	4/21/2021	EW-8	FS	µg/L	2.4		2.4		1	U	1	U	1	U	1	U
EW-8	7/20/2022	EW-8	FS	µg/L	3.8		3.8		1	U	1	U	1	U	2.1	
EW-8	10/17/2023	EW-8	FS	µg/L	3.2	J	2.7		0.48	J	1	U	1	U	2.2	
EW-9	10/2/2008	EW-9	FS	µg/L	140		140		1	U	240		86		1.2	U
EW-9	4/7/2009	EW-9	FS	µg/L	88	D08	86	D08	1.6	D08,J	230	D08	69	D08	5	U, D08
EW-9	10/6/2009	EW-9	FS	µg/L	280	D08	280	D08	2.9		500	D08	250	D08	1	U
EW-9	4/7/2010	EW-9	FS	µg/L	210	D08	200	D08	2.9	D08,J	270	D08	140	D08	4	U, D08
EW-9	10/4/2010	EW-9	FS	µg/L	590	D08	590	D08	6.2	D08	1400	D08	580	D08	4	U, D08
EW-9	10/4/2010	BLIND DUP	FD	µg/L	560	D08	550	D08	8	U, D08	1600	D08	580	D08	8	U, D08
EW-9	4/6/2011	EW-9	FS	µg/L	420		420		5.7		460		250		1	U
EW-9	4/6/2011	BLIND DUP 2	FD	µg/L	400		400		5.6		460		230		1	U
EW-9	10/4/2011	EW-9	FS	µg/L	230		230		4	U	210		140		4	U
EW-9	10/2/2012	EW-9	FS	µg/L	290		280		5.4		180		140		4	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
EW-9 (continued)	4/16/2013	EW-9	FS	µg/L	130		130		2.6		73		48		2	U
EW-9	10/15/2013	EW-9	FS	µg/L	130		130		3.1		65		44		2.5	U
EW-9	12/15/2014	EW-9	FS	µg/L	200		200		3.6 J		38		20		4	U
EW-9	3/30/2016	EW-9	FS	µg/L	150		150		4 U		45		18		4	U
EW-9	6/20/2017	EW-9	FS	µg/L	97		95		1.8 J		10		5.2		3.4	
EW-9	12/28/2018	EW-9	FS	µg/L	90		90		4 U		13		6.5		12	
EW-9	1/22/2020	EW-9	FS	µg/L	74		74		2 U		7.8		4.2		8.2	
EW-9	4/20/2021	EW-9	FS	µg/L	45		45		2 U		7.7		4.3		14	
EW-9	2/1/2022	EW-9	FS	µg/L	35.3		35.3		1 U		4.7		4.1		5.4 J-	
EW-9	3/1/2022	EW-9	FS	µg/L	30.3		30.3		1 U		5.3		3.8		13	
EW-9	4/1/2022	EW-9	FS	µg/L	29.9		29.9		1 U		12.3		7		9.8	
EW-9	5/2/2022	EW-9	FS	µg/L	28.3		27.3		1.1		5.6		5.8		11	
EW-9	6/1/2022	EW-9	FS	µg/L	553		550		3.2		38		24		32	
EW-9	7/1/2022	EW-9	FS	µg/L	94		93		1.4		13		9.4		27	
EW-9	7/20/2022	EW-9	FS	µg/L	40		38.6		1.4		6.1		5.4		16.2	
EW-9	8/1/2022	EW-9	FS	µg/L	110		108		1.6		8.6		5.7		36.2	
EW-10	10/1/2008	EW-10	FS	µg/L	22		22		1 U		480		110		1	U
EW-10	4/7/2009	EW-10	FS	µg/L	20		20		1 U		350	D08	110	D08	1	U
EW-10	10/6/2009	EW-10	FS	µg/L	7.6		7.6		1 U		110	D08	12		1	U
EW-10	4/7/2010	EW-10	FS	µg/L	15	D08	15	D08	4 U, D08		200	D08	87	D08	4	U, D08
EW-10	10/4/2010	EW-10	FS	µg/L	7.7	D08	7.7	D08	2 U, D08		100	D08	11	D08	2	U, D08
EW-10	4/6/2011	EW-10	FS	µg/L	98		98		1 U		1100		500		1	U
EW-10	10/4/2011	EW-10	FS	µg/L	38		38		4 U		240		130		4	U
EW-10	10/4/2012	EW-10	FS	µg/L	12		12		2 U		100		23		2	U
EW-11	10/1/2008	EW-11	FS	µg/L	76		75		0.68 J		46		12		1	U
EW-11	4/7/2009	EW-11	FS	µg/L	110	D08	110	D08	1.4		31		12		1	U
EW-11	10/6/2009	EW-11	FS	µg/L	120	D08	120	D08	1.7		140	D08	41		1	U
EW-11	4/7/2010	EW-11	FS	µg/L	100	D08	100	D08	3.1		39		21		1	U
EW-11	10/4/2010	EW-11	FS	µg/L	180	D08	180	D08	4.6 D08		110	D08	47	D08	2	U, D08
EW-11	4/6/2011	EW-11	FS	µg/L	170		160		5.6		21		14		4	U
EW-11	10/4/2011	EW-11	FS	µg/L	120		110		5.4		17		12		2	U
EW-11	6/7/2012	420006-EW11-078	FS	µg/L	2	U	1	U	1 U		0.42 J		1	U	1	U
EW-11	6/7/2012	420006-EW11-117	FS	µg/L	2.1		2.1		1 U		0.45 J		1	U	1	U
EW-11	6/7/2012	420006-EW11-160	FS	µg/L	3.2		3.2		1 U		1	U	1	U	3.1	
EW-11	7/10/2012	420006-EW11-079	FS	µg/L	3.2		3.2		1 U		1.6 U		0.56 J		1	U
EW-11	10/4/2012	EW-11	FS	µg/L	120		110		7		8.5		5		2	U
EW-11	4/29/2013	EW-11117	FS	µg/L	31		31		1 U		1	U	1	U	1	U
EW-11	11/5/2013	EW-11	FS	µg/L	6.8		6.8		1 U		1	U	1	U	1	U
EW-11	12/17/2014	EW-11	FS	µg/L	1.1	J	1.1		1 U		1	U	1	U	1	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
EW-11 (continued)	3/29/2016	EW-11	FS	µg/L	4.9		4.9		1 U		1 U		1 U		1 U	
EW-11	6/21/2017	EW-11	FS	µg/L	2	U	1	U	1 U		1 U		1 U		1 U	
EW-11	10/31/2018	EW-11	FS	µg/L	2	U	1	U	1 U		1 U		1 U		1 U	
EW-11	1/23/2020	EW-11	FS	µg/L	5.5		5.5		1 U		1 U		1 U		1 U	
EW-11	4/21/2021	EW-11	FS	µg/L	16		16		1 U		1 U		1		1 U	
EW-11	7/20/2022	EW-11	FS	µg/L	1.2	J	1.2		1 U		1 U		1 U		1 U	
EW-11	10/17/2023	EW-11	FS	µg/L	2.3		2.3		1 U		1 U		1 U		2 U	
EW-12	10/1/2008	EW-12	FS	µg/L	180		180		1 U		1200		370		1 U	
EW-12	1/12/2009	EW-12	FS	µg/L	140	D08	140	D08	4 U,D08		670	H2,D08	260	D08	4 U,D08	
EW-12	4/7/2009	EW-12	FS	µg/L	160	D08, N1	150	D08, N1	1 D08,N1,J		88	D08, N1	74	D08, N1	4 U,D08,N1	
EW-12	7/6/2009	EW-12	FS	µg/L	180	D08	180	D08	4 U, D08		250	D08	170	D08	4 U, D08	
EW-12	7/6/2009	BLIND DUP	FD	µg/L	180	D08	180	D08	4 U, D08		260	D08	160	D08	4 U, D08	
EW-12	10/6/2009	EW-12	FS	µg/L	180	D08	180	D08	4 U, D08		650	D08	320	D08	4 U, D08	
EW-12	1/6/2010	EW-12	FS	µg/L	150	D08	150	D08	1.2 D08,J		190	D08	120	D08	2 U, D08	
EW-12	4/7/2010	EW-12	FS	µg/L	100	D08	100	D08	2 U, D08		26	D08	21	D08	2 U, D08	
EW-12	7/6/2010	EW-12	FS	µg/L	180	D08	180	D08	2.2 D08		160	D08	110	D08	2 U, D08	
EW-12	10/4/2010	EW-12	FS	µg/L	170	D08	170	D08	2 U, D08		51	D08	37	D08	2 U, D08	
EW-12	1/3/2011	EW-12	FS	µg/L	140		140		1 U		17		9.7		1 U	
EW-12	4/6/2011	EW-12	FS	µg/L	150		150		1.6		100		84		1 U	
EW-12	10/4/2011	EW-12	FS	µg/L	56		56		1 U		4.3		2.6		3.7	
EW-12	6/7/2012	420006-EW12-076 6/7/2012	FS	µg/L	22		22		1 U		14		8.6		1 U	
EW-12	6/7/2012	420006-EW12-115 6/7/2012	FS	µg/L	23		23		1 U		18		9.2		1 U	
EW-12	6/7/2012	420006-EW12-140 6/7/2012	FS	µg/L	23		23		1 U		16		8.6		1 U	
EW-12	6/7/2012	420006-EW12-251 6/7/2012	FS	µg/L	2	U	1	U	1 U		1 U		1 U		4.3	
EW-12	7/18/2012	420006-EW12-140	FS	µg/L	25		25		1 U		140		24		1 U	
EW-12	10/4/2012	EW-12	FS	µg/L	110		92		1 U		81		45		1 U	
EW-12	4/29/2013	EW-12115	FS	µg/L	2	U	1	U	1 U		3.4		0.67	J	1 U	
EW-12	11/5/2013	EW-12	FS	µg/L	3.5		3.5		1 U		28		3.2		1 U	
EW-12	12/17/2014	EW-12	FS	µg/L	2	U	1	U	1 U		3.1		0.53	J	1 U	
EW-12	3/29/2016	EW-12	FS	µg/L	2	U	1	U	1 U		6.4		0.83	J	1 U	
EW-12	6/21/2017	EW-12	FS	µg/L	2	U	1	U	1 U		4.2		0.52	J	1 U	
EW-12	10/30/2018	EW-12	FS	µg/L	2	U	1	U	1 U		4.8		0.53	J	1 U	
EW-12	1/23/2020	EW-12	FS	µg/L	2	U	1	U	1 U		3.7		1	U	1 U	
EW-12	4/21/2021	EW-12	FS	µg/L	2	U	1	U	1 U		3		1	U	1 U	
EW-12	7/20/2022	EW-12	FS	µg/L	2	U	1	U	1 U		5.7		1	U	1 U	
EW-12	10/17/2023	EW-12	FS	µg/L	0.35	J	0.35	J	1 U		2.5		0.28	J	2 U	
EW-13	4/29/2013	EW-13100	FS	µg/L	2.9		2.9		1 U		20		3.2		1 U	
EW-13	4/29/2013	EW-13200	FS	µg/L	12		12		1 U		13		3.6		1 U	
EW-13	4/29/2013	EW-13300	FS	µg/L	14		14		1 U		14		3.7		1 U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
EW-13 (continued)	11/5/2013	EW-13	FS	µg/L	15		15		1 U		31		4		1 U	
EW-13	12/17/2014	EW-13	FS	µg/L	12		12		1 U		21		3.5		1 U	
EW-13	3/29/2016	EW-13	FS	µg/L	20		20		1 U		25		4.3		1 U	
EW-13	6/20/2017	EW-13	FS	µg/L	16		16		1 U		26		3.7		1 U	
EW-13	10/30/2018	EW-13	FS	µg/L	11		11		1 U		32		3		1 U	
EW-13	1/22/2020	EW-13	FS	µg/L	15		15		1 U		29		2.9		1.4	
EW-13	4/21/2021	EW-13	FS	µg/L	3.3		3.3		1 U		26		3		1 U	
EW-13	7/19/2022	EW-13	FS	µg/L	3.1		3.1		1 U		24.3		2.5		1 U	
EW-13	10/17/2023	EW-13	FS	µg/L	2.8		2.8		1 U		27		2.6		2 U	
EW-14	10/1/2008	EW-14	FS	µg/L	38		38		1 U		0.68 J		4.9		1 U	
EW-14	1/21/2009	EW-14	FS	µg/L	34		34		1 U		1 U		6.1		1 U	
EW-14	4/7/2009	EW-14	FS	µg/L	27	N1	27	N1	1 U, N1		1 U, N1		6.9	N1	1 U, N1	
EW-14	7/6/2009	EW-14	FS	µg/L	32		32		1 U		1 U		5.7		1 U	
EW-14	10/6/2009	EW-14	FS	µg/L	23		23		1 U		4.6		5.1		1 U	
EW-14	1/6/2010	EW-14	FS	µg/L	21		21		1 U		0.4 J		5		1 U	
EW-14	4/7/2010	EW-14	FS	µg/L	22		22		1 U		0.54 J		4.8		1 U	
EW-14	7/6/2010	EW-14	FS	µg/L	27		27		1 U		1 U		4.6		1 U	
EW-14	10/4/2010	EW-14	FS	µg/L	35		35		1 U		1 U		3		1 U	
EW-14	1/3/2011	EW-14	FS	µg/L	24		24		1 U		1 U		3.5		1 U	
EW-14	4/6/2011	EW-14	FS	µg/L	23		23		1 U		1 U		4.1		1 U	
EW-14	10/4/2011	EW-14	FS	µg/L	29		29		1 U		1 U		4.2		1 U	
EW-14	10/4/2012	EW-14	FS	µg/L	37		37		1 U		1 U		2.3		1 U	
EW-15	4/6/2011	EW-15	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
EW-15	10/18/2011	EW-15	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
EW-15	10/5/2012	EW-15	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
EW-16	10/2/2008	EW-16	FS	µg/L	450		450		2.5 U		1400		690		4.8 U	
EW-16	12/17/2008	EW-16	FS	µg/L	460		460		2.5 U		3700		1200		4.8 U	
EW-16	1/12/2009	EW-16	FS	µg/L	570	D08	570	D08	100 U, D08		3800	D08	1500	D08	100 U, D08	
EW-16	4/8/2009	EW-16	FS	µg/L	570	D08, N1	570	D08, N1	2.9 D08, N1		2100	D08, N1	1000	D08, N1	3 D08, N1	
EW-16	7/6/2009	EW-16	FS	µg/L	590	D08	590	D08	2.6 D08,J		1900	D08	1100	D08	2.6 D08,J	
EW-16	10/5/2009	EW-16	FS	µg/L	530	D08	530	D08	20 U, D08		1100	D08	560	D08	20 U, D08	
EW-16	1/6/2010	EW-16	FS	µg/L	700	D08	700	D08	20 U, D08		3000	D08	1500	D08	20 U, D08	
EW-16	4/7/2010	EW-16	FS	µg/L	950	D08	950	D08	40 U, D08		4800	D08	2400	D08	40 U, D08	
EW-16	7/7/2010	EW-16	FS	µg/L	2100	D08	2100	D08	40 U, D08		3000	D08	2000	D08	40 U, D08	
EW-16	10/4/2010	EW-16	FS	µg/L	1000	D08	1000	D08	40 U, D08		3300	D08	1900	D08	40 U, D08	
EW-16	1/3/2011	EW-16	FS	µg/L	1200		1200		5.2		4000		2100		8.9	
EW-16	1/3/2011	BLIND DUP 2	FD	µg/L	880	H	880	H	5		2400	H	1500	H	7.8	
EW-16	4/6/2011	EW-16	FS	µg/L	1300		1300		7.3		5600		2600		11	
EW-16	10/4/2011	EW-16	FS	µg/L	1500		1500		40 U		6600		3800		40 U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
EW-16 (continued)	6/7/2012	420006-EW16-100	FS	µg/L	924		920		3.6		2800		860		9.4	
EW-16	6/7/2012	420006-EW16-210	FS	µg/L	884		880		3.6		2400		820		7.4	
EW-16	6/7/2012	420006-EW16-320	FS	µg/L	880		880		25 U		2300		820		25 U	
EW-16	6/7/2012	420006-EW16-405	FS	µg/L	4200		4200		40 U		40 U		40 U		61	
EW-16	7/13/2012	420006-EW16-100	FS	µg/L	3322		3300		22		4300		2500		13	
EW-16	7/13/2012	420006-EW16-100D	FD	µg/L	3220		3200		20		4200		2500		13	
EW-16	7/17/2012	420006-EW16-320	FS	µg/L	2511		2500		11		3300		1500		8	
EW-16	7/17/2012	420006-EW16-404	FS	µg/L	3211		3200		11		3100		1600		94	
EW-16	10/2/2012	EW-16	FS	µg/L	1200		1200		100 U		6300		3300		100 U	
EW-16	4/16/2013	EW-16	FS	µg/L	1100		1100		40 U		7200		3100		40 U	
EW-16	10/15/2013	EW-16	FS	µg/L	840		840		50 U		3400		1800		50 U	
EW-16	12/18/2014	EW-16	FS	µg/L	1400		1400		8 U		4400		2000		14	
EW-16	3/30/2016	EW-16	FS	µg/L	640		640		20 U		520		400		20 U	
EW-16	6/20/2017	EW-16	FS	µg/L	1500		1500		20 U		1600		1300		19 J	
EW-16	10/31/2018	EW-16	FS	µg/L	990		990		20 U		1100		530		20 U	
EW-16	1/22/2020	EW-16	FS	µg/L	1500		1500		20 U		2400		1000		28	
EW-16	4/20/2021	EW-16	FS	µg/L	1300		1300		50 U		2600		1100		50 U	
EW-16	7/20/2022	EW-16	FS	µg/L	1960		1940		23.3		599		657		25.6	
EW-16	10/18/2023	EW-16	FS	µg/L	1000		1000		25 U		2100		1200		18 J	
IW-8	6/7/2012	420006-IW8-095 6/7/2012	FS	µg/L	2 U		1 U		1 U		0.89 J		0.55 J		1 U	
IW-8	6/7/2012	420006-IW8-150 6/7/2012	FS	µg/L	2 U		1 U		1 U		0.99 J		1 U		1 U	
IW-8	6/7/2012	420006-IW8-339 6/7/2012	FS	µg/L	2 U		1 U		1 U		1.3		0.51 J		1 U	
IW-8	4/29/2013	IW-8339	FS	µg/L	2 U		1 U		1 U		0.55 J		1 U		1 U	
IW-8	11/5/2013	IW-8	FS	µg/L	8.3		6.9		1.4		1 U		1.9		1.3	
IW-8	12/17/2014	IW-8	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
IW-8	3/29/2016	IW-8	FS	µg/L	1.1 J		1.1		1 U		0.66 J		0.65 J		1 U	
IW-8	6/21/2017	IW-8	FS	µg/L	2 U		1 U		1 U		0.65 J		1 U		1 U	
IW-8	10/30/2018	IW-8	FS	µg/L	2 U		1 U		1 U		0.55 J		1 U		1 U	
IW-8	1/23/2020	IW-8	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
IW-8	4/21/2021	IW-8	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
IW-8	7/20/2022	IW-8	FS	µg/L	2 U		1 U		1 U		1 U		1.1		1 U	
IW-8	10/17/2023	IW-8	FS	µg/L	2 U		1 U		1 U		1 U		0.86 J		2 U	
IW-9	6/7/2012	420006-IW9-085 6/7/2012	FS	µg/L	200		200		20 U		1200		620		20 U	
IW-9	6/7/2012	420006-IW9-107 6/7/2012	FS	µg/L	260		260		50 U		3200		1400		50 U	
IW-9	6/7/2012	420006-IW9-206 6/7/2012	FS	µg/L	310		310		40 U		2900 J		1900 J		40 U	
IW-9	6/7/2012	420006-IW9-333 6/7/2012	FS	µg/L	250		250		50 U		3400		1700		50 U	
IW-9	6/7/2012	420006-IW9-085 DUP 6/7/2012	FD	µg/L	220		220		20 U		1300		680		20 U	
IW-9	7/19/2012	420006-IW09-108	FS	µg/L	282		280		1.8		5900		2200		1 U	
IW-9	7/19/2012	420006-IW09-334	FS	µg/L	543		540		2.6		7300		3400		37	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
IW-9 (continued)	4/29/2013	IW-9333	FS	µg/L	270		270		1.3		570		820		1 U	
IW-9	11/5/2013	IW-9	FS	µg/L	310		310		1.2		1300		970		1 U	
IW-9	12/17/2014	IW-9	FS	µg/L	1000		1000		25 U		630		540		25 U	
IW-9	3/29/2016	IW-9	FS	µg/L	960		960		25 U		240		270		41	
IW-9	6/21/2017	IW-9	FS	µg/L	830		830		25 U		330		390		25 U	
IW-9	10/30/2018	IW-9	FS	µg/L	840 J		840 J		25 U		550		550		25 U	
IW-9	1/23/2020	IW-9	FS	µg/L	880		880		25 U		330		410		25 U	
IW-9	4/21/2021	IW-9	FS	µg/L	570		570		25 U		210		320		25 U	
IW-9	7/20/2022	IW-9	FS	µg/L	590		586		3.6		168		239		2.1	
IW-9	10/17/2023	IW-9	FS	µg/L	17		17		1 U		6.6		2.2		1.2 J	
IW-10	6/7/2012	420006-IW10-016 6/7/2012	FS	µg/L	2.2		2.2		1 U		0.51 J		1.4		1 U	
IW-10	6/7/2012	420006-IW10-040 6/7/2012	FS	µg/L	2.1		2.1		1 U		0.96 J		1.5		1 U	
IW-10	6/7/2012	420006-IW10-140 6/7/2012	FS	µg/L	2.3		2.3		1 U		1 U		1 U		3.3	
IW-10	4/29/2013	IW-10040	FS	µg/L	2 U		1 U		1 U		0.82 J		0.58 J		1 U	
IW-10	11/5/2013	IW-10	FS	µg/L	2 U		1 U		1 U		0.67 J		1 U		1 U	
IW-10	12/17/2014	IW-10	FS	µg/L	7		7		1 U		1 U		1 U		1 U	
IW-10	3/29/2016	IW-10	FS	µg/L	19		19		1 U		10		2.9		1 U	
IW-10	6/21/2017	IW-10	FS	µg/L	10		10		1 U		1 U		2		1 U	
IW-10	10/30/2018	IW-10	FS	µg/L	5.7		5.7		1 U		1 U		1.8		1 U	
IW-10	1/23/2020	IW-10	FS	µg/L	3.8		3.8		1 U		1 U		1.3		1 U	
IW-10	4/21/2021	IW-10	FS	µg/L	2.7		2.7		1 U		1 U		0.9 J		1 U	
IW-10	7/20/2022	IW-10	FS	µg/L	3.6		3.6		1 U		1 U		1.3		1 U	
IW-10	10/17/2023	IW-10	FS	µg/L	1.8		1.8		1 U		0.28 J		0.61 J		2 U	
IW-12	6/7/2012	420006-IW12-075 6/7/2012	FS	µg/L	5.1		5.1		1 U		1.2		1.3		1 U	
IW-12	6/7/2012	420006-IW12-125 6/7/2012	FS	µg/L	146		140		5.7		2.6		16		2 U	
IW-12	6/7/2012	420006-IW12-158 6/7/2012	FS	µg/L	134		130		3.9		2 U		2 U		8.4	
IW-12	7/19/2012	420006-IW12-124	FS	µg/L	183		170		13 J		170 NJ		51 NJ		1.8 J	
IW-14	6/7/2012	420006-IW14-080 6/7/2012	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
IW-14	6/7/2012	420006-IW14-140 6/7/2012	FS	µg/L	0.85 J		0.85 J		1 U		1 U		1 U		1 U	
IW-14	6/7/2012	420006-IW14-189 6/7/2012	FS	µg/L	6.6		6.6		1 U		1 U		0.5 J		1 U	
IW-14	6/7/2012	420006-IW14-290 6/7/2012	FS	µg/L	7.2		7.2		1 U		1 U		1 U		1 U	
IW-14	7/20/2012	420006-IW14-084	FS	µg/L	5 U		3 U		2 U		130 NJ		11 U		2 U	
IW-14	7/20/2012	420006-IW14-188	FS	µg/L	8 U		4 U		4 U		220 NJ		21 NJ		4 U	
	10/2/2008	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	10/2/2008	BET	FS	µg/L	2 U		0.62 J		1 U		1 U		1 U		1 U	
	1/5/2009	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	1/5/2009	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	4/6/2009	BEF	FS	µg/L	2 U, N1		0.69 N1,J		1 U, N1		1 U, N1		1 U, N1		1 U, N1	
	4/6/2009	BET	FS	µg/L	2 U, N1		0.29 N1,J		1 U, N1		1 U, N1		1 U, N1		1 U, N1	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
(continued)	7/6/2009	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/6/2009	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/5/2009	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/5/2009	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/5/2010	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/5/2010	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/6/2010	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/6/2010	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/6/2010	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/6/2010	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/5/2010	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/5/2010	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/3/2011	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/3/2011	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/5/2011	BEF	FS	µg/L	8.8		8.8		1	U	1	U	1	U	1	U
	4/5/2011	BET	FS	µg/L	1.9	J	1.9		1	U	1	U	1	U	1	U
	7/5/2011	BEF	FS	µg/L	3.1		3.1		1	U	1	U	1	U	1	U
	7/5/2011	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/5/2011	BEF	FS	µg/L	1.1	J	1.1		1	U	1	U	1	U	1	U
	10/5/2011	BET	FS	µg/L	2.4		2.4		1	U	1	U	1	U	1	U
	1/4/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/4/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/18/2012	BEF	FS	µg/L	1.1	J	1.1		1	U	1	U	1	U	1	U
	4/18/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	5/3/2012	BEF	FS	µg/L	6.1		6.1		1	U	1	U	1	U	1	U
	5/3/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	6/5/2012	BEF 6/5/2012	FS	µg/L	1.9	J	1.9		1	U	1	U	1	U	1	U
	6/5/2012	BET 6/5/2012	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/3/2012	BEF	FS	µg/L	2.2		2.2		1	U	1	U	1	U	1	U
	7/3/2012	BET	FS	µg/L	1.1	J	1.1		1	U	1	U	1	U	1	U
	8/6/2012	BEF	FS	µg/L	0.92	J	0.92	J	1	U	1	U	1	U	1	U
	8/6/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/1/2012	BEF	FS	µg/L	1	J	1		1	U	1	U	1	U	1	U
	10/1/2012	BET	FS	µg/L	0.86	J	0.86	J	1	U	1	U	1	U	1	U
	1/8/2013	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/8/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/1/2013	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/1/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/16/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride		
NYS Class GA Standard					5	5	5	5	5	2		
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
(continued)	10/15/2013	BET	FS	µg/L	1.2	J	1.2		1	U	1	U
	1/6/2014	-BET	FS	µg/L	1.9	J	1.9		1	U	1	U
	4/8/2014	BET	FS	µg/L	0.81	J	0.81	J	1	U	1	U
	7/9/2014		FS	µg/L	2	U	1	U	1	U	1	U
	10/14/2014	BET	FS	µg/L	2		2		1	U	1	U
	1/14/2015	BEF	FS	µg/L	0.81	J	0.81	J	1	U	1	U
	4/9/2015		FS	µg/L	1.5	J	1.5		1	U	1	U
	7/7/2015	BET	FS	µg/L	2		2		1	U	1	U
	10/5/2015	BET	FS	µg/L	2	U	1	U	1	U	1	U
	1/13/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U
	4/1/2016	BEF	FS	µg/L	5		5		1	U	1	U
	4/1/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U
	7/6/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U
	10/10/2016	BET	FS	µg/L	1.5	J	1.5		1	U	1	U
	1/11/2017	BET	FS	µg/L	1.2	J	1.2		1	U	1	U
	4/13/2017	BET	FS	µg/L	2	U	1	U	1	U	1	U
	6/20/2017	-BET	FS	µg/L	2	U	1	U	1	U	1	U
	7/6/2017	BEF	FS	µg/L	3.5		3.5		1	U	1	U
	12/6/2017	-BET	FS	µg/L	2	U	1	U	1	U	1	U
	2/2/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U
	4/13/2018	BET	FS	µg/L	2.3		2.3		1	U	1	U
	8/17/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U
	10/29/2018	BEF	FS	µg/L	2	U	1	U	1	U	1	U
	10/29/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U
	1/3/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U
	4/5/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U
	7/19/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U
	10/15/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U
	1/21/2020	BEF	FS	µg/L	2	U	1	U	1	U	1	U
	1/21/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U
	6/15/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U
	8/17/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U
11/3/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U	
2/3/2021	-BEF	FS	µg/L	2.9		2.9		1	U	1	U	
2/3/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	
4/20/2021	-BEF	FS	µg/L	1.1	J	1.1		1	U	1	U	
4/20/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	
7/15/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	
7/15/2021	-BET	FS	µg/L	1	J	1		1	U	1	U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride		
NYS Class GA Standard					5	5	5	5	5	2		
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
(continued)	10/4/2021	-BET	FS	µg/L	2.3		2.3		1 U		1 U	
	10/4/2021	-BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	1/4/2022	-BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	1/4/2022	-BET	FS	µg/L	2 U		1 U		1 U		1 U	
	7/19/2022	-BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	10/1/2008	BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	10/1/2008	BET	FS	µg/L	2 U		1 U		1 U		1 U	
	1/13/2009	BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	1/13/2009	BET	FS	µg/L	2 U		1 U		1 U		1 U	
	4/6/2009	BEF	FS	µg/L	2 U, N1		1 U, N1		1 U, N1		1 U, N1	
	4/6/2009	BET	FS	µg/L	2 U, N1		1 U, N1		1 U, N1		1 U, N1	
	7/7/2009	BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	7/7/2009	BET	FS	µg/L	2 U		1 U		1 U		1 U	
	10/19/2009	BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	10/19/2009	BET	FS	µg/L	2 U		1 U		1 U		1 U	
	1/5/2010	BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	1/5/2010	BET	FS	µg/L	2 U		1 U		1 U		1 U	
	4/8/2010	BEF	FS	µg/L	2 U		0.56 J		1 U		1 U	
	4/8/2010	BET	FS	µg/L	2 U		1 U		1 U		1 U	
	7/6/2010	BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	7/6/2010	BET	FS	µg/L	2 U		1 U		1 U		1 U	
	10/4/2010	BEF	FS	µg/L	2 U		1 U		1 U		1 U	
	10/4/2010	BET	FS	µg/L	2 U		1 U		1 U	0.62 J	1 U	
	1/4/2011	BEF	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	1/4/2011	BET	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	4/5/2011	BEF	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	4/5/2011	BET	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	7/5/2011	BEF	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	7/5/2011	BET	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	10/17/2011	BEF	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	10/17/2011	BET	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	1/3/2012	BEF	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	1/3/2012	BET	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	4/18/2012	BEF	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	4/18/2012	BET	FS	µg/L	2 U		1 U		1 U	0.65 J	1 U	
	5/3/2012	BEF	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
	5/3/2012	BET	FS	µg/L	2 U		1 U		1 U	1 U	1 U	
6/6/2012	BEF 6/6/2012	FS	µg/L	2 U		1 U		1 U	1 U	1 U		
6/6/2012	BET 6/6/2012	FS	µg/L	2 U		1 U		1 U	1 U	1 U		

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
(continued)	7/5/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/5/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	8/7/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	8/7/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/3/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/3/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/9/2013	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/9/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/16/2013	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/16/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/16/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/15/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/6/2014	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/7/2014	BET	FS	µg/L	2	U	1	U	1	U	0.98	J	1	U	1	U
	7/7/2014	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/14/2014	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/14/2015	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/9/2015		FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/7/2015	BET	FS	µg/L	2	U	1	U	1	U	0.73	J	1	U	1	U
	10/5/2015	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/13/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/1/2016	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/1/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/6/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/10/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/11/2017	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/13/2017	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	6/20/2017	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/6/2017	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	12/6/2017	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	2/2/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/13/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	8/17/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/18/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/29/2018	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/3/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/5/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/19/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/15/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
(continued)	1/21/2020	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/21/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	6/23/2020	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	8/17/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	11/3/2020	BET	FS	µg/L	2	U	1	U	1	U	0.77	J	1	U	1	U
	2/3/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	2/3/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/20/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/20/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/15/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/15/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/4/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/4/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/4/2022	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/4/2022	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/19/2022	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	4/29/2013	M-4080	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	4/29/2013	M-4130	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	4/29/2013	M-4180	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	11/5/2013	M-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	12/17/2014	M-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	3/29/2016	M-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	6/21/2017	M-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	10/31/2018	M-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	1/23/2020	M-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	4/21/2021	M-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	7/20/2022	MW-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
M-4	10/17/2023	M-4	FS	µg/L	2	U	1	U	1	U	1	U	1	U	2	U
M-5	10/6/2008	M-5	FS	µg/L	43		43		1	U	1	U	2		1	U
M-5	1/13/2009	M-5	FS	µg/L	43		43		1	U	1	U	1	U	1	U
M-5	4/7/2009	M-5	FS	µg/L	40	N1	40	N1	0.46	N1,J	1	U, N1	1.8	N1	1	U, N1
M-5	7/7/2009	M-5	FS	µg/L	41		41		1	U	1	U	1.9		1	U
M-5	10/6/2009	M-5	FS	µg/L	33		33		1	U	1.3		1.8		1	U
M-5	1/6/2010	M-5	FS	µg/L	38		37		0.45	J	0.51	J	1.7		1	U
M-5	1/6/2010	BLIND DUP	FD	µg/L	36		36		1	U	1	U	1.6		1	U
M-5	4/8/2010	M-5	FS	µg/L	36		36		0.48	J	1	U	1.6		1	U
M-5	7/7/2010	M-5	FS	µg/L	33		33		1	U	1	U	1.7		1	U
M-5	10/6/2010	M-5	FS	µg/L	34		34		1	U	1	U	1.5		1	U
M-5	1/4/2011	M-5	FS	µg/L	34		34		1	U	1	U	1.5		1	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
M-5 (continued)	4/11/2011	M-5	FS	µg/L	28		28		1 U		1 U		1.2		1 U	
M-5	7/6/2011	M-5	FS	µg/L	36		36		1 U		1 U		1.5		1 U	
M-5	10/6/2011	M-5	FS	µg/L	29		29		1 U		1 U		1.3		1 U	
M-5	1/4/2012	M-5	FS	µg/L	29		29		1 U		1 U		1.3		1 U	
M-5	10/5/2012	M-5	FS	µg/L	28		28		1 U		1 U		0.98 J		1 U	
M-5	4/17/2013	M-5	FS	µg/L	32		32		1 U		1 U		1.1		1 U	
M-5	10/16/2013	M-5	FS	µg/L	31		31		0.35 J		1 U		0.73 J		1 U	
M-5	12/16/2014	M-5	FS	µg/L	34		34		1 U		1 U		0.69 J		1 U	
M-5	3/29/2016	M-5	FS	µg/L	23		22		1.1		1 U		1 U		1 U	
M-5	6/20/2017	M-5	FS	µg/L	18		17		1.1		1 U		1 U		1 U	
M-5	10/30/2018	M-5	FS	µg/L	16		16		1 U		1 U		1 U		3.5	
M-5	1/22/2020	M-5	FS	µg/L	14		14		1 U		1 U		1 U		4.6	
M-5	4/21/2021	M-5	FS	µg/L	15		15		1 U		1 U		1 U		2.9	
M-5	7/19/2022	M-5	FS	µg/L	12.7		12.7		1 U		1 U		1 U		6.7	
M-5	10/17/2023	M-5	FS	µg/L	11		11		1 U		1 U		1 U		4.6	
M-6	4/29/2013	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	10/16/2013	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	12/16/2014	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	3/30/2016	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	6/21/2017	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	10/30/2018	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	1/23/2020	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	4/20/2021	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	7/19/2022	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-6	10/17/2023	M-6	FS	µg/L	2 U		1 U		1 U		1 U		1 U		2 U	
M-8	1/23/2020	M-8	FS	µg/L	7.1		7.1		1 U		0.98 J		1		1 U	
M-8	4/21/2021	M-8	FS	µg/L	9.8		9.8		1 U		1 U		1.4		1 U	
M-8	7/19/2022	M-8	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-8	10/17/2023	M-8	FS	µg/L	0.67 J		0.35 J		0.32 J		1 U		1 U		0.32 J	
M-9	1/23/2020	M-9	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-9	4/21/2021	M-9	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-9	7/19/2022	M-9	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
M-9	10/17/2023	M-9	FS	µg/L	2 U		1 U		1 U		1 U		1 U		2 U	
MUELLER	10/6/2008	MUELLER	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
MUELLER	4/7/2009	MUELLER	FS	µg/L	2 U, N1		1 U, N1		1 U, N1		1 U, N1		1 U, N1,M7		1 U, N1	
MUELLER	7/7/2009	MUELLER	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
MUELLER	10/6/2009	MUELLER	FS	µg/L	0.71 J		0.71 J		1 U		1.6		1 U		1 U	
MUELLER	7/19/2010	MUELLER	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
MUELLER	10/6/2010	MUELLER	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2- Dichloroethene		trans-1,2- Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
MUELLER (continued)	4/11/2011	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	7/6/2011	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	10/6/2011	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	1/4/2012	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	10/5/2012	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	4/17/2013	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	10/16/2013	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	12/16/2014	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	3/29/2016	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	6/20/2017	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	10/30/2018	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	1/22/2020	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	4/21/2021	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	7/19/2022	MUELLER	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MUELLER	10/17/2023	Mueller	FS	µg/L	0.41	J	0.41	J	1	U	1	U	1	U	2	U
MW-104	6/7/2012	420006-MW104-079	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MW-104	4/21/2021	MW-104	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MW-104	7/20/2022	MW-104	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MW-104	10/17/2023	MW-104	FS	µg/L	2	U	1	U	1	U	1	U	1	U	2	U
MW-108	6/7/2012	420006-MW108-083	FS	µg/L	2	U	1	U	1	U	0.49	J	1	U	1	U
MW-109	6/7/2012	420006-MW109-083	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MW-109	4/21/2021	MW-109	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MW-109	7/20/2022	MW-109	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MW-109	10/17/2023	MW-109	FS	µg/L	2	U	1	U	1	U	1	U	1	U	2	U
MW-112	6/7/2012	420006-MW112-019	FS	µg/L	2	U	1	U	1	U	1.5		1	U	1	U
MW-112	6/7/2012	420006-MW112-019 DUP	FD	µg/L	2	U	1	U	1	U	1.5		1	U	1	U
MW-112	7/20/2020	MW-112	FS	µg/L	2	U	1	U	1	U	1.4		0.7	J	1	U
MW-112	4/21/2021	MW-112	FS	µg/L	2	U	1	U	1	U	1	U	0.57	J	1	U
MW-112	7/19/2022	MW-112	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
MW-112	10/17/2023	MW-112	FS	µg/L	0.86	J	0.86	J	1	U	1	U	0.94	J	2	U
MW-113	6/7/2012	420006-MW113-018	FS	µg/L	40	UJ	20	U	20	UJ	1400	J	20	U	20	U
MW-113	7/20/2020	MW-113	FS	µg/L	40	U	20	U	20	U	940		20	U	20	U
MW-113	4/21/2021	MW-113	FS	µg/L	40	U	20	U	20	U	890		10	J	20	U
MW-113	7/19/2022	MW-113	FS	µg/L	24.4		24.4		1	U	1650		23.1		1	U
MW-113	10/17/2023	MW-113	FS	µg/L	15	J	15	J	20	U	1900		11	J	40	U
OW-1	10/2/2008	OW-1	FS	µg/L	85		85		1	U	200		24		1	U
OW-1	4/7/2009	OW-1	FS	µg/L	90	D08	90	D08	4	U, D08	450	D08	30	D08	3.7	D08,J
OW-1	10/5/2009	OW-1	FS	µg/L	91		90		0.69	J	130	D08,P-HS	48		0.51	J
OW-1	4/7/2010	OW-1	FS	µg/L	130	D08	130	D08	4	U, D08	310	H2,D08,P-H	51	D08	4	U, D08

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
OW-1 (continued)	10/4/2010	OW-1	FS	µg/L	98	D08	98	D08	2 U, D08		160	D08	22	D08	2 U, D08	
OW-1	4/6/2011	OW-1	FS	µg/L	160		160		1		320		40		1 U	
OW-1	10/6/2011	OW-1	FS	µg/L	98		98		2 U		160		25		2 U	
OW-1	10/4/2012	OW-1	FS	µg/L	60		60		1 U		79		21		1.6	
OW-2	10/2/2008	OW-2	FS	µg/L	120		120		1 U		360		16		1.2 U	
OW-2	1/12/2009	OW-2	FS	µg/L	40	U,D08	20	U,D08	20 U,D08		2400	H2,D08	20	U,D08	20 U,D08	
OW-2	4/6/2009	OW-2	FS	µg/L	29	D08,J	29	D08	20 U, D08		2900	D08	30	D08	20 U, D08	
OW-2	10/5/2009	OW-2	FS	µg/L	190	D08	190	D08	10 U, D08		700	D08	35	D08	10 U, D08	
OW-2	4/7/2010	OW-2	FS	µg/L	70	D08	70	D08	10 U, D08		1200	H2,D08,P-H	33	D08	10 U, D08	
OW-2	10/4/2010	OW-2	FS	µg/L	49	D08	49	D08	20 U, D08		1700	D08	30	D08	20 U, D08	
OW-2	4/6/2011	OW-2	FS	µg/L	110		110		1 U		1500		35		1 U	
OW-2	10/18/2011	OW-2	FS	µg/L	67		67		20 U		1100		28		20 U	
OW-2	10/2/2012	OW-2	FS	µg/L	73		73		20 U		1200		26		20 U	
OW-2	4/16/2013	OW-2	FS	µg/L	70		70		20 U		1800		27		20 U	
OW-2	10/15/2013	OW-2	FS	µg/L	32	J	32		25 U		1900		20	J	25 U	
OW-2	12/15/2014	OW-2	FS	µg/L	66		66		20 U		1100		23		20 U	
OW-2	3/30/2016	OW-2	FS	µg/L	110		110		20 U		1300		26		20 U	
OW-2	6/20/2017	OW-2	FS	µg/L	38	J	38		20 U		470		19	J	20 U	
OW-2	10/31/2018	OW-2	FS	µg/L	76		76		20 U		840		24		20 U	
OW-2	1/22/2020	OW-2	FS	µg/L	89		89		20 U		1200		25		20 U	
OW-2	4/20/2021	OW-2	FS	µg/L	91		91		20 U		1100		30		20 U	
OW-2	7/20/2022	OW-2	FS	µg/L	68.4		68.4		1 U		389		17.8		1 U	
OW-2	10/18/2023	OW-2	FS	µg/L	130		130		20 U		1200		26		40 U	
OW-3	10/2/2008	OW-3	FS	µg/L	87	U	70		16 U		7400		140		30 U	
OW-3	1/12/2009	OW-3	FS	µg/L	400	D08	400	D08	120 U,D08		20000	H2,D08	700	D08	120 U,D08	
OW-3	4/6/2009	OW-3	FS	µg/L	64	D08	64	D08	25 U, D08		2200	D08	110	D08	25 U, D08	
OW-3	10/5/2009	OW-3	FS	µg/L	100	D08,J	100	D08,J	4.3		10000	D08	240	D08	2.8	
OW-3	4/7/2010	OW-3	FS	µg/L	110	D08	110	D08	50 U, D08		8300	D08	250	D08	50 U, D08	
OW-3	10/4/2010	OW-3	FS	µg/L	90	D08,J	90	D08,J	100 U, D08		9500	D08	210	D08	100 U, D08	
OW-3	4/6/2011	OW-3	FS	µg/L	88		85		2.7		7800		180		1 U	
OW-3	10/18/2011	OW-3	FS	µg/L	160	U	80	U	80 U		5400		150		80 U	
OW-3	10/3/2012	OW-3	FS	µg/L	160	U	80	U	80 U		4500		110		80 U	
OW-3	4/16/2013	OW-3	FS	µg/L	84	J	84		80 U		7900		190		80 U	
OW-3	10/15/2013	OW-3	FS	µg/L	75	J	75	J	170 U		8600		180		170 U	
OW-3	12/15/2014	OW-3	FS	µg/L	120	J	120		80 U		5100		110		80 U	
OW-3	3/30/2016	OW-3	FS	µg/L	160		160		80 U		11000		190		80 U	
OW-3	6/20/2017	OW-3	FS	µg/L	400	U	200	U	200 U		4800		110	J	200 U	
OW-3	10/31/2018	OW-3	FS	µg/L	180		180		80 U		6500		150		80 U	
OW-3	1/22/2020	OW-3	FS	µg/L	220		220		80 U		11000		210		80 U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
OW-3 (continued)	4/20/2021	OW-3	FS	µg/L	190	J	190	J	200	U	5300		140	J	200	U
OW-3	7/20/2022	OW-3	FS	µg/L	221		217		3.2		10400		289		1.7	
OW-3	10/18/2023	OW-3	FS	µg/L	230		230		100	U	11000		200		200	U
OW-5	10/2/2008	OW-5	FS	µg/L	440		440		16	U	8900		130		30	U
OW-5	1/12/2009	OW-5	FS	µg/L	82	H2,D08	82	H2,D08	10	U,H2,D08	840	H2,D08	180	H2,D08	10	U,H2,D08
OW-5	4/6/2009	OW-5	FS	µg/L	49	D08	49	D08	5	U, D08	370	D08	38	D08	5	U, D08
OW-5	10/5/2009	OW-5	FS	µg/L	490	D08,P-HS	490	D08,P-HS	1.6		4700	D08,P-HS	120	D08,HS,J	6.1	
OW-5	4/7/2010	OW-5	FS	µg/L	680	D08	680	D08	200	U, D08	12000	D08	220	D08	200	U, D08
OW-5	10/4/2010	OW-5	FS	µg/L	590	D08	590	D08	200	U, D08	13000	D08	210	D08	200	U, D08
OW-5	4/6/2011	OW-5	FS	µg/L	500		500		0.98	J	8300		150		4	
OW-5	4/6/2011	BLIND DUP 1	FD	µg/L	550		550		1.2		7500		150		3.8	
OW-5	10/18/2011	OW-5	FS	µg/L	490		490		130	U	8400		160		130	U
OW-5	10/2/2012	OW-5	FS	µg/L	570		570		130	U	6300		150		130	U
OW-5	4/16/2013	OW-5	FS	µg/L	1000		1000		100	U	14000		250		100	U
OW-5	10/15/2013	OW-5	FS	µg/L	2200		2200		200	U	9300		320		200	U
OW-5	3/30/2016	OW-5	FS	µg/L	2400		2400		200	U	7300		420		200	U
OW-5	6/20/2017	OW-5	FS	µg/L	900	J	900	J	50	UJ	1500	J	96	J	5.8	J
OW-5	10/31/2018	OW-5	FS	µg/L	1600	J	1600	J	100	U	5200	J	310		100	U
OW-5	1/22/2020	OW-5	FS	µg/L	1100		1100		100	U	4200		230		100	U
OW-5	4/20/2021	OW-5	FS	µg/L	24		24		1	U	72		6.2		1	U
OW-5	7/20/2022	OW-5	FS	µg/L	1370		1360		5.3		3900		273		2.5	
OW-5	10/18/2023	OW-5	FS	µg/L	850		850		40	U	3000		220		80	U
OW-6	10/2/2008	OW-6	FS	µg/L	18		18		1	U	27		8.9		1	U
OW-6	12/17/2008	OW-6	FS	µg/L	16		16		1	U	28		8.1		1	U
OW-6	1/12/2009	OW-6	FS	µg/L	15		15		1	U	23		7.1		1	U
OW-6	4/8/2009	OW-6	FS	µg/L	17		17		1	U	27		7.8		1	U
OW-6	10/5/2009	OW-6	FS	µg/L	23		23		1	U	25		9.9		1	U
OW-6	4/7/2010	OW-6	FS	µg/L	18		18		1	U	26		8.4		1	U
OW-6	10/4/2010	OW-6	FS	µg/L	23		23		1	U	17		8.2		1	U
OW-6	10/5/2011	OW-6	FS	µg/L	30		30		1	U	31		8.8		1.4	
OW-7	10/2/2008	OW-7	FS	µg/L	99		99		1.3	U	1000		49		2.4	U
OW-7	12/17/2008	OW-7	FS	µg/L	100		100		2.5	U	1000		45		4.8	U
OW-7	1/12/2009	OW-7	FS	µg/L	130	D08	130	D08	10	U,D08	1200	H2,D08	57	D08	10	U,D08
OW-7	4/8/2009	OW-7	FS	µg/L	110	D08	110	D08	10	U, D08	1100	D08	49	D08	10	U, D08
OW-7	4/8/2009	BLIND DUP	FD	µg/L	140	D08	140	D08	20	U, D08	1300	D08	62	D08	20	U, D08
OW-7	10/5/2009	OW-7	FS	µg/L	170	D08	170	D08	0.48	J	1400	D08	120	D08	0.62	J
OW-7	4/7/2010	OW-7	FS	µg/L	100	D08	100	D08	20	U, D08	850	D08	44	D08	20	U, D08
OW-7	10/4/2010	OW-7	FS	µg/L	210	D08	210	D08	8	U, D08	400	D08	37	D08	9.5	D08
OW-7	4/6/2011	OW-7	FS	µg/L	77		77		1	U	600		47		1	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
OW-7 (continued)	10/5/2011	OW-7	FS	µg/L	99		99		10 U		730		64		10 U	
OW-7	10/2/2012	OW-7	FS	µg/L	98		98		10 U		620		51		10 U	
OW-7	4/16/2013	OW-7	FS	µg/L	110		110		10 U		680		71		10 U	
OW-7	10/15/2013	OW-7	FS	µg/L	87		87		4 U		200		36		4 U	
OW-7	12/18/2014	OW-7	FS	µg/L	30		30		1 U		74		13		1 U	
OW-7	3/30/2016	OW-7	FS	µg/L	1700		1700		20 U		20 U		20 U		20 U	
OW-7	6/20/2017	OW-7	FS	µg/L	12		12		1 U		47		6		1 U	
OW-7	10/31/2018	OW-7	FS	µg/L	120		120		10 U		230		45		10 U	
OW-7	1/22/2020	OW-7	FS	µg/L	160		160		10 U		670		180		10 U	
OW-7	4/20/2021	OW-7	FS	µg/L	1100		1100		10 U		1800		840		35	
OW-7	7/20/2022	OW-7	FS	µg/L	37.6		37.6		1 U		116		16.1		1 U	
OW-9	10/2/2008	OW-9	FS	µg/L	25		25		1 U		280		7.1		1.2 U	
OW-9	4/8/2009	OW-9	FS	µg/L	20	D08	20	D08	5 U, D08		270	D08	5.6	D08	5 U, D08	
OW-9	10/5/2009	OW-9	FS	µg/L	77		75		1.4		310	D08	9.7		1 U	
OW-9	4/7/2010	OW-9	FS	µg/L	120	D08	120	D08	5 U, D08		370	D08	9.2	D08	5 U, D08	
OW-9	10/4/2010	OW-9	FS	µg/L	100	D08	100	D08	5 U, D08		320	D08	10	D08	5 U, D08	
OW-9	4/6/2011	OW-9	FS	µg/L	200		200		1 U		440		14		1 U	
OW-9	10/5/2011	OW-9	FS	µg/L	270		270		10 U		440		20		10 U	
OW-9	10/4/2012	OW-9	FS	µg/L	910		910		10 U		910		55		9.1 J	
OW-10	10/2/2008	OW-10	FS	µg/L	6.6		6.6		1 U		330		7.4		1.2 U	
OW-10	4/8/2009	OW-10	FS	µg/L	6.7	D08,J	6.7	D08	5 U, D08		360	D08	5.8	D08	5 U, D08	
OW-10	10/5/2009	OW-10	FS	µg/L	11		11		1 U		310	D08	17		1 U	
OW-10	10/5/2009	BLIND DUP 2	FD	µg/L	530	D08,P-HS	530	D08,P-HS	1.5		7400	D08,P-HS	150	D08,HS,J	5.8	
OW-10	4/7/2010	OW-10	FS	µg/L	8.8	D08,J	8.8	D08	5 U, D08		380	D08	6.6	D08	5 U, D08	
OW-10	10/4/2010	OW-10	FS	µg/L	7.9	D08,J	7.9	D08	5 U, D08		300	D08	6.6	D08	5 U, D08	
OW-10	4/6/2011	OW-10	FS	µg/L	7.7	J	7.7		5 U		330		5.8		5 U	
OW-10	10/5/2011	OW-10	FS	µg/L	12		12		5 U		320		8.3		5 U	
OW-11	10/2/2008	OW-11	FS	µg/L	140		140		1 U		220		55		10	
OW-11	4/8/2009	OW-11	FS	µg/L	500	D08	490	D08	2.4	D08,J	700	D08	190	D08	38	D08
OW-11	10/5/2009	OW-11	FS	µg/L	690	D08	690	D08	3.6		810	D08	270	D08	76	
OW-11	4/7/2010	OW-11	FS	µg/L	110	D08	110	D08	2 U, D08		150	D08	110	D08	1.6	D08,J
OW-11	10/4/2010	OW-11	FS	µg/L	3500	D08	3500	D08	10	D08	3400	D08	920	D08	500	D08
OW-11	4/6/2011	OW-11	FS	µg/L	250		250		0.96	J	340		94		15	
OW-11	10/5/2011	OW-11	FS	µg/L	250		250		8 U		270		79		24	
OW-11	10/4/2012	OW-11	FS	µg/L	85		85		1 U		90		20		8.3	
OW-12	10/2/2008	OW-12	FS	µg/L	68		68		1 U		34		19		49	
OW-12	12/17/2008	OW-12	FS	µg/L	680		730		4.2		160		96		100	
OW-12	1/12/2009	OW-12	FS	µg/L	600	H2,D08	600	H2,D08	4 U,D08		4 U,D08		4 U,D08		150	D08
OW-12	4/8/2009	OW-12	FS	µg/L	270	D08	270	D08	1.4	D08,J	48	D08	11	D08	110	D08

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
OW-12 (continued)	10/5/2009	OW-12	FS	µg/L	270	D08	270	D08	1.1		6.9		5.1		220	D08
OW-12	4/7/2010	OW-12	FS	µg/L	510	D08	510	D08	2.8	D08,J	20	D08	15	D08	220	D08
OW-12	10/4/2010	OW-12	FS	µg/L	94	D08	94	D08	2	U, D08	12	D08	12	D08	120	D08
OW-12	4/6/2011	OW-12	FS	µg/L	150		150		2	U	27		7		91	
OW-12	10/5/2011	OW-12	FS	µg/L	300		300		2	U	14		7		140	
OW-12	10/4/2012	OW-12	FS	µg/L	73		73		5	U	25		9.7		76	
OW-13	10/2/2008	OW-13	FS	µg/L	120		120		1.3	U	730		11		2.4	U
OW-13	12/17/2008	OW-13	FS	µg/L	120		120		1.3	U	770		10		2.4	U
OW-13	1/12/2009	OW-13	FS	µg/L	110	D08	110	D08	10	U,D08	580	D08	10	U,D08	10	U,D08
OW-13	4/8/2009	OW-13	FS	µg/L	94	D08	94	D08	10	U, D08	740	D08	11	D08	10	U, D08
OW-13	10/6/2009	OW-13	FS	µg/L	170	D08	170	D08	1	U	930	D08	25		1	U
OW-13	4/7/2010	OW-13	FS	µg/L	130	D08	130	D08	10	U, D08	690	D08	14	D08	10	U, D08
OW-13	10/4/2010	OW-13	FS	µg/L	180	D08	180	D08	10	U, D08	790	D08	18	D08	10	U, D08
OW-13	4/6/2011	OW-13	FS	µg/L	110		110		1	U	800		14		0.96	J
OW-13	10/5/2011	OW-13	FS	µg/L	130		130		10	U	630		16		10	U
OW-13	10/2/2012	OW-13	FS	µg/L	120		120		10	U	440		14		10	U
OW-13	4/17/2013	OW-13	FS	µg/L	180		180		10	U	790		15		10	U
OW-13	10/15/2013	OW-13	FS	µg/L	140		140		11	U	670		15		11	U
OW-13	3/30/2016	OW-13	FS	µg/L	70		70		5	U	140		13		5	U
OW-13	6/20/2017	OW-13	FS	µg/L	32		32		5	U	120		6		5	U
OW-13	10/30/2018	OW-13	FS	µg/L	75		75		5	U	230		8.1		5	U
OW-13	1/22/2020	OW-13	FS	µg/L	1100		1100		50	U	3500		280		5	U
OW-13	4/20/2021	OW-13	FS	µg/L	710		710		20	U	860		340		20	U
OW-13	7/20/2022	OW-13	FS	µg/L	90.2		90.2		1	U	147		8.8		1.2	
OW-14	10/2/2008	OW-14	FS	µg/L	720		720		25	U	18000		1000		48	U
OW-14	1/12/2009	OW-14	FS	µg/L	53	H2,D08	53	H2,D08	20	U,H2,D08	1300	H2,D08	62	H2,D08	20	U,H2,D08
OW-14	4/6/2009	OW-14	FS	µg/L	29	D08,J	29	D08	20	U, D08	1100	D08	40	D08	20	U, D08
OW-14	10/6/2009	OW-14	FS	µg/L	810	D08	810	D08	3.5		17000	D08	1800	D08	36	
OW-14	4/7/2010	OW-14	FS	µg/L	900	D08	900	D08	200	U, D08	18000	D08	1400	D08	200	U, D08
OW-14	10/4/2010	OW-14	FS	µg/L	1300	D08	1300	D08	200	U, D08	29000	D08	2100	D08	200	U, D08
OW-14	4/6/2011	OW-14	FS	µg/L	900		900		3.4		16000		1200		32	
OW-14	10/5/2011	OW-14	FS	µg/L	890		890		200	U	17000		1300		200	U
OW-14	10/5/2011	BLIND DUP	FD	µg/L	890		890		10	U	16000		1300		37	
OW-14	10/2/2012	OW-14	FS	µg/L	760		760		200	U	10000		880		200	U
OW-14	4/16/2013	OW-14	FS	µg/L	750		750		100	U	6900		520		100	U
OW-14	10/15/2013	OW-14	FS	µg/L	1000		1000		250	U	15000		1100		250	U
OW-14	12/15/2014	OW-14	FS	µg/L	810		810		100	U	9300		810		100	U
OW-14	3/30/2016	OW-14	FS	µg/L	2100		2100		40	U	150		460		40	U
OW-14	6/20/2017	OW-14	FS	µg/L	610		610		40	U	3900		1000		40	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
OW-14 (continued)	10/31/2018	OW-14	FS	µg/L	950		950		100 U		7300		680		100 U	
OW-14	1/22/2020	OW-14	FS	µg/L	980		980		100 U		7400		770		100 U	
OW-14	4/19/2021	OW-14	FS	µg/L	1600		1600		100 U		9800		1100		98 J	
OW-14	7/20/2022	OW-14	FS	µg/L	1380		1370		7.2		2420		584		134	
OW-14	10/18/2023	OW-14	FS	µg/L	1000		1000		40 U		2500		830		34 J	
OW-15	10/2/2008	OW-15	FS	µg/L	260		260		1.3 U		320		41		20	
OW-15	12/17/2008	OW-15	FS	µg/L	370		370		1.3 U		430		71		56	
OW-15	1/12/2009	OW-15	FS	µg/L	1800	H2,D08	1800	H2,D08	10 U,D08		460	D08	270	D08	480	D08
OW-15	4/8/2009	OW-15	FS	µg/L	370	D08	370	D08	1.2 D08,J		350	D08	51	D08	56	D08
OW-15	10/5/2009	OW-15	FS	µg/L	410	D08	410	D08	0.97 J		190	D08	58		25	
OW-15	4/7/2010	OW-15	FS	µg/L	230	D08	230	D08	5 U, D08		330	D08	41	D08	40	D08
OW-15	10/4/2010	OW-15	FS	µg/L	280	D08	280	D08	4 U, D08		210	D08	29	D08	64	D08
OW-15	4/6/2011	OW-15	FS	µg/L	160		160		2 U		330		32		19	
OW-15	10/5/2011	OW-15	FS	µg/L	210		210		5 U		270		27		34	
OW-15	10/4/2012	OW-15	FS	µg/L	63		63		2 U		130		23		2 U	
OW-16	10/2/2008	OW-16	FS	µg/L	90		90		1 U		360		34		1 U	
OW-16	4/8/2009	OW-16	FS	µg/L	16		16		1 U		100	D08	13		1 U	
OW-16	10/6/2009	OW-16	FS	µg/L	20	D08	20	D08	8 U, D08		550	D08	42	D08	8 U, D08	
OW-16	4/7/2010	OW-16	FS	µg/L	140	D08	140	D08	8 U, D08		920	D08	84	D08	8 U, D08	
OW-16	10/4/2010	OW-16	FS	µg/L	65	D08	65	D08	8 U, D08		450	D08	38	D08	8 U, D08	
OW-16	4/6/2011	OW-16	FS	µg/L	63		63		1 U		490		39		1 U	
OW-16	10/5/2011	OW-16	FS	µg/L	560		580		10 U		8700		610		10 U	
OW-16	10/2/2012	OW-16	FS	µg/L	93		93		4 U		250		35		4 U	
OW-16	4/16/2013	OW-16	FS	µg/L	89		89		10 U		430		45		10 U	
OW-16	10/15/2013	OW-16	FS	µg/L	99		99		13 U		850		89		13 U	
OW-16	3/31/2016	OW-16	FS	µg/L	110		110		10 U		350		59		10 U	
OW-16	6/20/2017	OW-16	FS	µg/L	62		62		10 U		200		20		10 U	
OW-16	10/31/2018	OW-16	FS	µg/L	470		470		80 U		2300		290		80 U	
OW-16	1/22/2020	OW-16	FS	µg/L	47		47		5 U		240		20		5 U	
OW-16	4/19/2021	OW-16	FS	µg/L	1000		1000		10 U		1600		420		24	
OW-16	7/20/2022	OW-16	FS	µg/L	64		64		1 U		80.4		24.2		1 U	
OW-16	10/18/2023	OW-16	FS	µg/L	180		180		5 U		310		50		3.4 J	
R-1	10/6/2008	R-1	FS	µg/L	47		47		1 U		1.2		1.4		1 U	
R-1	1/13/2009	R-1	FS	µg/L	17		17		1 U		1 U		1 U		1 U	
R-1	4/6/2009	R-1	FS	µg/L	24	N1	24	N1	1 U, N1		1.2	N1	0.89	N1,J	1 U, N1	
R-1	7/7/2009	R-1	FS	µg/L	24		24		1 U		1.3		0.77	J	1 U	
R-1	10/6/2009	R-1	FS	µg/L	23		23		1 U		3		0.62	J	1 U	
R-1	1/6/2010	R-1	FS	µg/L	20		20		1 U		1.5		0.66	J	1 U	
R-1	4/8/2010	R-1	FS	µg/L	1.2	J	1.2		1 U		0.49	J	1 U		1 U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
R-1 (continued)	7/7/2010	R-1	FS	µg/L	24		24		1 U		1.1		0.65 J		1 U	
R-1	10/6/2010	R-1	FS	µg/L	17		17		1 U		0.84 J		0.66 J		1 U	
R-1	10/6/2010	BLIND DUP	FD	µg/L	17		17		1 U		0.97 J		0.74 J		1 U	
R-1	1/4/2011	R-1	FS	µg/L	16		16		1 U		1.4		0.74 J		1 U	
R-1	4/5/2011	R-1	FS	µg/L	19		19		1 U		1.6		1		1 U	
R-1	7/6/2011	R-1	FS	µg/L	17		17		1 U		1.2		0.63 J		1 U	
R-1	10/6/2011	R-1	FS	µg/L	2.9		2.9		1 U		0.77 J		1 U		1 U	
R-1	1/4/2012	R-1	FS	µg/L	16		16		1 U		1.2		0.51 J		1 U	
R-1	10/4/2012	R-1	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	10/6/2008		FS	µg/L	150		150		1.2		1.2		17		1 U	
	1/13/2009		FS	µg/L	44		44		1 U		1 U		2.7		1 U	
	4/7/2009		FS	µg/L	160	D08, N1	160	D08, N1	1.3 N1		1 U, N1		8.4 N1		1 U, N1	
	4/11/2011		FS	µg/L	140		140		1.3		1 U		1.6		1 U	
	7/6/2011		FS	µg/L	50		50		1 U		1 U		0.63 J		1 U	
	10/6/2011		FS	µg/L	91		90		1.1		1 U		0.65 J		1 U	
	1/4/2012		FS	µg/L	100		100		1		1 U		1.2		1 U	
	10/5/2012		FS	µg/L	130		130		2 U		2 U		2 U		2 U	
	10/6/2008	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	10/6/2008	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	1/21/2009	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	1/21/2009	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	4/7/2009	BEF	FS	µg/L	2 U, N1		1 U, N1		1 U, N1		1 U, N1		1 U, N1		1 U, N1	
	4/7/2009	BET	FS	µg/L	2 U, N1		1 U, N1		1 U, N1		1 U, N1		1 U, N1		1 U, N1	
	7/21/2009	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	7/21/2009	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	10/19/2009	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	10/19/2009	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	1/5/2010	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	1/5/2010	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	4/7/2010	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	4/8/2010	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	7/7/2010	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	7/7/2010	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	10/4/2010	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	10/4/2010	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	1/4/2011	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	1/4/2011	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	4/5/2011	BEF	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	
	4/5/2011	BET	FS	µg/L	2 U		1 U		1 U		1 U		1 U		1 U	

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride					
NYS Class GA Standard					5		5		5		5		5		2					
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier				
(continued)	7/6/2011	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	7/6/2011	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	10/17/2011	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	10/17/2011	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	1/3/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	1/3/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	4/18/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	4/18/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	5/3/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	5/3/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	7/5/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	7/5/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	8/7/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	8/7/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	10/17/2012	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	10/17/2012	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	1/15/2013	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	1/15/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	4/16/2013	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	4/16/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	7/16/2013	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	10/16/2013		FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	1/7/2014	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U				
	4/7/2014		FS	µg/L	2	U	1	U	1	U	0.56 J	1	U	1	U	1	U			
	7/7/2014		FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U		
	10/13/2014	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U		
	1/16/2015		FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U		
	4/9/2015		FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U		
	7/7/2015	BET	FS	µg/L	2	U	1	U	1	U	0.39 J	1	U	1	U	1	U	1	U	
	10/5/2015	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	1/13/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	4/1/2016	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	4/1/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	7/6/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	10/10/2016	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	1/11/2017	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	4/13/2017	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	6/20/2017	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
	7/6/2017	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Historical Groundwater Results – Site VOCs

Parameter					1,2-Dichloroethene (total)		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
NYS Class GA Standard					5		5		5		5		5		2	
Location	Date	Sample ID	QC Code	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
(continued)	12/6/2017	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	2/2/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/13/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	8/17/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/18/2018	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/29/2018	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/3/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/25/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/19/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/15/2019	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/21/2020	BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/21/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	6/23/2020	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	8/17/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	11/3/2020	BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	2/3/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	2/3/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/20/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	4/20/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/15/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/15/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/4/2021	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	10/4/2021	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/4/2022	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	1/4/2022	-BET	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U
	7/19/2022	-BEF	FS	µg/L	2	U	1	U	1	U	1	U	1	U	1	U

Notes:

- A blank cell indicates that the compound was not analyzed for.
- Bolded values indicate a detection of the corresponding standard.
- Bolded, gray-shaded values indicate an exceedance of the corresponding standard.
FS = field sample
FD = field duplicate
NYS = New York State
µg/L = micrograms per liter
VOCs = volatile organic compounds

Qualifiers:

D08 = dilution required due to high concentration of target compound(s)
H2 = Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
J = estimated value
N1 = estimated value
P-H = sample container contained headspace
U = not detected

APPENDIX B

2021-2023 GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PERFORMANCE SAMPLING RESULTS

2021-2023 Groundwater Extraction and Treatment System Performance Sampling Results

Location			Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff	
Field Sample Date			1/5/2021		2/3/2021		3/3/2021		4/5/2021		5/3/2021		6/1/2021		7/1/2021		8/2/2021	
Field Sample ID			PS-AS-EFFLUENT		PS-AS EFFLUENT		PS-AS-EFFLUENT		PS-AS-EFFLUENT		PS-AS-EFFLUENT		PS-AS EFFLUENT		PS-AS EFFLUENT		PS-AS-EFFLUENT	
QC Code			FS		FS		FS		FS		FS		FS		FS		FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,1,2-Trichloroethane	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,1-Dichloroethene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,2-Dichloroethane	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,2-Dichloroethene (total)	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
SW8260C	2-Hexanone	µg/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SW8260C	Acetone	µg/L	10	U	10	U	10	U	10	U	8.4	J	10	U	10	U	3.2	J
SW8260C	Carbon disulfide	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.2	J
SW8260C	Carbon tetrachloride	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Chloroform	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Chloromethane	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	cis-1,2-Dichloroethene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Methylene chloride	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Tetrachloroethene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Toluene	µg/L	1	U	1	U	1	U	1	U	1	U	0.59	J	1	U	1	U
SW8260C	trans-1,2-Dichloroethene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Trichloroethene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Vinyl chloride	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW6010C	Aluminum	µg/L	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
SW6010C	Antimony	µg/L																
SW6010C	Arsenic	µg/L	6	U	6	U	6	U	6	U	6	U	6	U	6	U	6	U
SW6010C	Barium	µg/L	99.1		118		63.5		63.5		70.4		55		80.9		59.5	
SW6010C	Beryllium	µg/L																
SW6010C	Cadmium	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW6010C	Calcium	µg/L																
SW6010C	Chromium	µg/L	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U
SW6010C	Cobalt	µg/L																
SW6010C	Copper	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Iron	µg/L	107		209		122		101		68.1		50	U	285		50	U
SW6010C	Lead	µg/L	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U
SW6010C	Magnesium	µg/L																
SW6010C	Manganese	µg/L	82.9		141		46.3		62.2		51.8		35		111		105	
SW6010C	Nickel	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Potassium	µg/L																
SW6010C	Selenium	µg/L																
SW6010C	Silver	µg/L																
SW6010C	Sodium	µg/L																
SW6010C	Thallium	µg/L																
SW6010C	Vanadium	µg/L																
SW6010C	Zinc	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW7470A	Mercury	µg/L	0.12	U	0.12	U	0.12	U	0.12	U	0.12	U	0	U	0.12	U	0.12	U
SM2540F	Total Settleable Solids	mg/L																
SM2540C	Total Dissolved Solids	mg/L	473		458		402		305		333	J-	387		372		367	
SM2540D	Total Suspended Solids	mg/L	4	U	4	U	4	U	4	U	4	UJ	4	U	4	U	4	U

Notes:
Blank cell indicates compound was not analyzed for
µg/L = micrograms per liter
mg/L = milligrams per liter
FS = field sample

Qualifiers:
U = not detected
UJ = not detected, estimated value
J = estimated value

J- = estimated value, biased low
J+ = estimated value, biased high

2021-2023 Groundwater Extraction and Treatment System Performance Sampling Results

Location			Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	Air Stripper Eff	
Field Sample Date			1/4/2022	2/1/2022	3/1/2022	4/1/2022	5/2/2022	6/1/2022	7/1/2022	8/1/2022	9/1/2022	10/3/2022	11/2/2022	12/2/2022
Field Sample ID			PS-AS EFFLUENT	PS-AS EFFLUENT	PS-AS EFFLUENT	PS-AS-EFFLUENT	PS-AS EFFLUENT	PS-AS Effluent	PA-AS Effluent	PS-AS Effluent	PS-AS-EFFLUENT	PS-AS Effluent	PS-AS Effluent	PS-AS Effluent
QC Code			FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	µg/L	1 U		1 U		1 U		1 U		1 U		1 U	
SW8260C	1,1,2,2-Tetrachloroethane	µg/L	1 U		1 U		1 U		0.5 U		1 U		0.5 U	
SW8260C	1,1,2-Trichloroethane	µg/L	1 U		1 U		1 U		1 U		1 U		1 U	
SW8260C	1,1-Dichloroethene	µg/L	1 U		1 U		1 U		1 U		2.2		1 U	
SW8260C	1,2-Dichloroethane	µg/L	1 U		1 U		1 U		1 U		1 U		1 U	
SW8260C	1,2-Dichloroethene (total)	µg/L	2 U		2 U		2 U				2 U			
SW8260C	2-Hexanone	µg/L	5 U		5 U		5 U		10 U		5 U		10 U	
SW8260C	Acetone	µg/L	5 U		5 U		5 U	2.2 J	2.7 J		50 U		5 U	
SW8260C	Carbon disulfide	µg/L	1 U		1 U		1 U		5 U		5 U		1 U	
SW8260C	Carbon tetrachloride	µg/L	1 U		1 U		1 U		5 U		5 U		1 U	
SW8260C	Chloroform	µg/L	1 U		1 U		1 U		2 U		2 U		1 U	
SW8260C	Chloromethane	µg/L	1 UJ		1 UJ		1 U		2 UJ		2 UJ		1 UJ	
SW8260C	cis-1,2-Dichloroethene	µg/L	1 U		1 U		1 U		1 U		1 U		10 U	
SW8260C	Methylene chloride	µg/L	1 U		1 U		1 U		1 U		5 U		1 U	
SW8260C	Tetrachloroethene	µg/L	1 U		1 U		1		1 U		1 U		523	
SW8260C	Toluene	µg/L	1 U		1 U		1 U		1 U		1 U		1 U	
SW8260C	trans-1,2-Dichloroethene	µg/L	1 U		1 U		1 U		1 U		6		1 U	
SW8260C	Trichloroethene	µg/L	1 U		1 U		1 U		1 U		1 U		246	
SW8260C	Vinyl chloride	µg/L	1 U		1 UJ		1 U		1 U		2 U		29.5	
SW6010C	Aluminum	µg/L	55.9 J		68.7 J		123 J		70.1 J		50.6 J		42 J	
SW6010C	Antimony	µg/L												
SW6010C	Arsenic	µg/L	10 U		10 U		10 U		10 U		10 U		10 U	
SW6010C	Barium	µg/L	40.1 J		53 J		52.5 J		51.2 J		47.2 J		68	
SW6010C	Beryllium	µg/L												
SW6010C	Cadmium	µg/L	2.5 U		2.5 U		2.5 U		2.5 U		4 U		4 U	
SW6010C	Calcium	µg/L												
SW6010C	Chromium	µg/L	10 U		10 U		10 U		10 U		10 U		10 U	
SW6010C	Cobalt	µg/L												
SW6010C	Copper	µg/L	25 U		25 U		25 U		6.1 J		25 U		10 U	
SW6010C	Iron	µg/L	72.6 J		167		231		199		140		180	
SW6010C	Lead	µg/L	5 U		5 U		11.8		5 U		5 U		10 U	
SW6010C	Magnesium	µg/L												
SW6010C	Manganese	µg/L	26.3		28.7		40		32.9		38.5		140	
SW6010C	Nickel	µg/L	6.2 J		9.1 J		9.3 J		7.7 J		8.6 J		10 U	
SW6010C	Potassium	µg/L												
SW6010C	Selenium	µg/L												
SW6010C	Silver	µg/L												
SW6010C	Sodium	µg/L												
SW6010C	Thallium	µg/L												
SW6010C	Vanadium	µg/L												
SW6010C	Zinc	µg/L	20 U		20 U		20 U		20 U		10 U		10 U	
SW7470A	Mercury	µg/L	0.2 U		0.2 U		0.2 U		0.2 U		0.1 U		0.1 U	
SM2540F	Total Settleable Solids	mg/L												
SM2540C	Total Dissolved Solids	mg/L	401		378		364		354		373		230	
SM2540D	Total Suspended Solids	mg/L	2 U		5 U		1.6 J		2.8		2.8		1.3 U	

Notes:
Blank cell indicates compound was not analyzed for
µg/L = micrograms per liter
mg/L = milligrams per liter
FS = field sample

Qualifiers:
U = not detected
UJ = not detected, estimated value
J = estimated value

J- = estimated value, biased low
J+ = estimated value, biased high

2021-2023 Groundwater Extraction and Treatment System Performance Sampling Results

Location			Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff		Air Stripper Eff	
Field Sample Date			1/3/2023		2/1/2023		3/1/2023		4/3/2023		5/2/2023		6/1/2023		7/6/2023		8/1/2023		9/5/2023		10/3/2023		11/2/2023		12/1/2023	
Field Sample ID			PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent		PS-AS Effluent	
QC Code			FS		FS		FS		FS		FS		FS		FS		FS		FS		FS		FS		FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW8260C	1,1,2-Trichloroethane	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,1-Dichloroethene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,2-Dichloroethane	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	1,2-Dichloroethene (total)	µg/L	2	U	2	U	0.19	J	0.23	J	2	U	0.22	J	0.42	J	2	U	2	U	2	U	2	U	2	J
SW8260C	2-Hexanone	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW8260C	Acetone	µg/L	2.4	J	50	U	50	U	50	U	50	U	3.2	J	50	U	50	U	50	U	50	U	50	U	50	J
SW8260C	Carbon disulfide	µg/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SW8260C	Carbon tetrachloride	µg/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SW8260C	Chloroform	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
SW8260C	Chloromethane	µg/L	2	U	2	UJ	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
SW8260C	cis-1,2-Dichloroethene	µg/L	1	U	1	U	0.19	J	0.23	J	1	U	0.22	J	0.42	J	1	U	1	U	1	U	1	U	1	J
SW8260C	Methylene chloride	µg/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
SW8260C	Tetrachloroethene	µg/L	1	U	1	U	0.19	J	0.6	J	1	U	1	U	1	U	1	U	0.18	J	1	U	1	U	1	U
SW8260C	Toluene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	4.7		0.37	J	1	U	1	U	1	U
SW8260C	trans-1,2-Dichloroethene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Trichloroethene	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
SW8260C	Vinyl chloride	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
SW6010C	Aluminum	µg/L	78		110		50	U	1400		150		73		61		93		130		88		47	J	32	J
SW6010C	Antimony	µg/L																								
SW6010C	Arsenic	µg/L	10	U	10	U	10	U	10	U	52		10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Barium	µg/L	42	J	47	J	35	J	50	J	37	J	35	J	35	J	36	J	47	J	48	J	49	J	53	
SW6010C	Beryllium	µg/L																								
SW6010C	Cadmium	µg/L	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U
SW6010C	Calcium	µg/L																								
SW6010C	Chromium	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Cobalt	µg/L																								
SW6010C	Copper	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Iron	µg/L	120	J+	130	J+	93		890		260		150		110		50	U	250		160	J+	50	U	160	J+
SW6010C	Lead	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Magnesium	µg/L																								
SW6010C	Manganese	µg/L	35		93		42		61		220		35		40		30		57		41		39		63	
SW6010C	Nickel	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Potassium	µg/L																								
SW6010C	Selenium	µg/L																							50	U
SW6010C	Silver	µg/L																							10	U
SW6010C	Sodium	µg/L																								
SW6010C	Thallium	µg/L																								
SW6010C	Vanadium	µg/L																								
SW6010C	Zinc	µg/L	10	U	10	U	10	U	10	U	23		10	U	10	U	10	U	10	U	16		10	U	10	U
SW7470A	Mercury	µg/L	0.1	U	0.1	U	0.1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SM2540F	Total Settleable Solids	mg/L																								
SM2540C	Total Dissolved Solids	mg/L	250		320		330		290		130		330		350		370		310		420		250		350	
SM2540D	Total Suspended Solids	mg/L	1	U	1.6		2.2		2.4		1	U	4		1	U	0.8	J	1.4		1.8		5	U	2.5	U

Notes:

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2021-2023 Groundwater Extraction and Treatment System Performance Sampling Results

Location			PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent
Field Sample Date			1/5/2021	2/3/2021	3/3/2021	4/5/2021	5/3/2021	6/1/2021	7/1/2021	8/2/2021	9/1/2021	10/4/2021	11/1/2021	12/1/2021
Field Sample ID			PS-INFLUENT	PS INFLUENT	PS-AS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT
QC Code			FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260C	1,1,1-Trichloroethane	µg/L	20	U	1	U	20	U	20	U	20	U	40	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/L	20	U	1	U	20	U	20	U	20	U	40	U
SW8260C	1,1,2-Trichloroethane	µg/L	20	U	1	U	20	U	19	J	20	U	40	U
SW8260C	1,1-Dichloroethene	µg/L	20	U	2.9		20	U	20	U	20	U	40	U
SW8260C	1,2-Dichloroethane	µg/L	20	U	1	U	20	U	20	U	20	U	40	U
SW8260C	1,2-Dichloroethene (total)	µg/L	670		840		610		950		610		860	
SW8260C	2-Hexanone	µg/L	100	U	5	U	100	U	100	U	100	U	200	U
SW8260C	Acetone	µg/L	62	J	10	U	200	U	200	U	200	U	400	U
SW8260C	Carbon disulfide	µg/L	20	U	1	U	20	U	20	U	20	U	40	U
SW8260C	Carbon tetrachloride	µg/L	20	U	1	U	20	U	20	U	20	U	40	U
SW8260C	Chloroform	µg/L	20	U	1	U	20	U	20	U	20	U	40	U
SW8260C	Chloromethane	µg/L	20	U	1	U	20	U	20	U	20	U	40	U
SW8260C	cis-1,2-Dichloroethene	µg/L	670		840		610		950		610		860	
SW8260C	Methylene chloride	µg/L	20	U	1	U	20	U	20	U	20	U	18	J
SW8260C	Tetrachloroethene	µg/L	2100		2800		950		850		770		950	
SW8260C	Toluene	µg/L	20	U	1	U	20	U	20	U	20	U	40	U
SW8260C	trans-1,2-Dichloroethene	µg/L	20	U	80	U	20	U	20	U	20	U	40	U
SW8260C	Trichloroethene	µg/L	600		760		290		260		190		220	
SW8260C	Vinyl chloride	µg/L	20	U	19		20	U	27		18	J	20	U
SW6010C	Aluminum	µg/L	200	U	200	U	200	U	200	U	200	U	200	U
SW6010C	Antimony	µg/L												
SW6010C	Arsenic	µg/L	6	U	6	U	6	U	6	U	6	U	6	U
SW6010C	Barium	µg/L	88.8		111		61.1		93.5		69.4		55	
SW6010C	Beryllium	µg/L												
SW6010C	Cadmium	µg/L	1	U	1	U	1	U	1	U	1	U	1	U
SW6010C	Calcium	µg/L												
SW6010C	Chromium	µg/L	4	U	4	U	4	U	4	U	4	U	4	U
SW6010C	Cobalt	µg/L												
SW6010C	Copper	µg/L	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Iron	µg/L	63.8		113		70.4		125		50	U	131	
SW6010C	Lead	µg/L	3	U	3	U	3	U	3	U	3	U	3	U
SW6010C	Magnesium	µg/L												
SW6010C	Manganese	µg/L	69		137		37.1		54.7		40.8		32	
SW6010C	Nickel	µg/L	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Potassium	µg/L												
SW6010C	Selenium	µg/L												
SW6010C	Silver	µg/L												
SW6010C	Sodium	µg/L												
SW6010C	Thallium	µg/L												
SW6010C	Vanadium	µg/L												
SW6010C	Zinc	µg/L	10	U	10	U	10	U	10	U	10	U	10	U
SW7470A	Mercury	µg/L	0.12	U	0.12	U	0.12	U	0.12	U	0.12	U	0.12	U
SM2540F	Total Settleable Solids	mg/L												
SM2540C	Total Dissolved Solids	mg/L	459		454		417		361		350	J-	397	
SM2540D	Total Suspended Solids	mg/L	4	U	4	U	4	U	4	U	4	U	4	U

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2021-2023 Groundwater Extraction and Treatment System Performance Sampling Results

Location			PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	PS-Influent	
Field Sample Date			1/4/2022	2/1/2022	3/1/2022	4/1/2022	5/2/2022	6/1/2022	7/1/2022	8/1/2022	9/1/2022	10/3/2022	11/2/2022	12/2/2022
Field Sample ID			PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-INFLUENT	PS-Influent	PS-Influent	PS-Influent	PS-INFLUENT	PS-Influent	PS-Influent	PS-Influent
QC Code			FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Method	Parameter	Units	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier	Result Qualifier
SW8260C	1,1,1-Trichloroethane	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	10 UD	1 U	1 U	10 U	10 U	10 U
SW8260C	1,1,2,2-Tetrachloroethane	µg/L	1 U	1 U	1 U	1 U	1 U	0.5 U	5 UD	1 U	1 U	5 U	5 U	5 U
SW8260C	1,1,2-Trichloroethane	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	10 UD	1 U	1 U	10 U	10 U	10 U
SW8260C	1,1-Dichloroethene	µg/L		1.4	1 U	1.5	1.5	4.9	10 UD	1 U	1.5	1.8 J	10 U	10 U
SW8260C	1,2-Dichloroethane	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	10 UD	1 U	1 U	10 U	10 U	10 U
SW8260C	1,2-Dichloroethene (total)	µg/L	739	632	368	652	794				692			
SW8260C	2-Hexanone	µg/L	5 U	5 U	5 U	5 U	5 U	10 U	100 UD	5 U	5 U	100 U	100 U	100 U
SW8260C	Acetone	µg/L	5 U	5 U	5 U	5 U	5 U	50 U	500 UD	5 U	5 U	500 U	500 U	500 U
SW8260C	Carbon disulfide	µg/L	1 U	1 U	1 U	1 U	1 U	5 U	50 UD	1 U	1 U	50 U	50 U	50 U
SW8260C	Carbon tetrachloride	µg/L	1 U	1 U	1 U	1 U	1 U	5 U	50 UD	1 U	1 U	50 U	50 U	50 U
SW8260C	Chloroform	µg/L	1 U	1 U	1 U	1 U	1 U	2 U	20 UD	1 U	1 U	20 U	20 U	20 U
SW8260C	Chloromethane	µg/L	1 UJ	1 UJ	1 UJ	1 U	1 U	2 UJ	20 UJ	1 UJ	1 U	20 U	20 U	20 U
SW8260C	cis-1,2-Dichloroethene	µg/L	739	628	365	647	789	1700	820 D	849	687	860	710	490
SW8260C	Methylene chloride	µg/L	1 U	1 U	1 U	1 U	1 U	5 U	50 UD	1 U	1 U	50 U	50 U	50 U
SW8260C	Tetrachloroethene	µg/L	349	218	792	899	484	3300	640 D	1 U	365	690	1100	1100
SW8260C	Toluene	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	10 UD	1 U	1 U	10 U	10 U	10 U
SW8260C	trans-1,2-Dichloroethene	µg/L	4.7	3.7	3.5	4.5	5	8	5 JD	1 U	4.8	5.9 J	5.3 J	3.8 J
SW8260C	Trichloroethene	µg/L	128	101	272	273	317	1200	270 D	1 U	213	250	240	400
SW8260C	Vinyl chloride	µg/L	17.1	9.1 J-	14	12.3	16	18	17 JD	1 U	15.2	26	12 J	13 J
SW6010C	Aluminum	µg/L	40.8 J	35.4 J	134 J	86.1 J	77.4 J	34 J	130		106 J	63	1500	61
SW6010C	Antimony	µg/L							50 U					
SW6010C	Arsenic	µg/L	10 U	6.5 J	10 U	10 U	10 U	10 U	10 U	10 U	5.6 J	10 U	10 U	10 U
SW6010C	Barium	µg/L	48.1 J	52.7 J+	51.5 J	50.3 J	46.6 J	60	49 J	200 U	40.5 J	62	58	43 J
SW6010C	Beryllium	µg/L							4 U					
SW6010C	Cadmium	µg/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4 U	4 U	2.5 U	2.5 U	4 U	4 U	4 U
SW6010C	Calcium	µg/L						37000	16000					
SW6010C	Chromium	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
SW6010C	Cobalt	µg/L						10 U	10 U					
SW6010C	Copper	µg/L	25 U	25 U	25 U	3.8 J	25 U	10 U	10 U	25 U	25 U	10 U	10 U	10 U
SW6010C	Iron	µg/L	76 J	99.3 J	237	246	172	150	330	352	158	300	1300	100
SW6010C	Lead	µg/L	5 U	5 U	5 U	5 U	5 U	3 J	10 U	5 U	5 U	10 U	10 U	10 U
SW6010C	Magnesium	µg/L						5800	3400					
SW6010C	Manganese	µg/L	66.8	28.8	46.4	32.3	39.2	190	70	46.4	30.3 J	50	44	31
SW6010C	Nickel	µg/L	6.8 J	8.5 J	9.3 J	7.8 J	8.5 J	10 U	10 U	40 U	16.3 J	10 U	10 U	10 U
SW6010C	Potassium	µg/L							2000 U					
SW6010C	Selenium	µg/L							50 U					
SW6010C	Silver	µg/L							10 U					
SW6010C	Sodium	µg/L							140000					
SW6010C	Thallium	µg/L							50 U					
SW6010C	Vanadium	µg/L							10 U					
SW6010C	Zinc	µg/L	20 U	20 U	20 U	20 U	20 U	10 U	10 U	20 U	20 U	9.3 J	4.5 J	10 U
SW7470A	Mercury	µg/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U
SM2540F	Total Settleable Solids	mg/L								0.1				
SM2540C	Total Dissolved Solids	mg/L	410	387	373	356	366	380	350	398	410	350	190	250
SM2540D	Total Suspended Solids	mg/L	2 U	5 U	4.4	2	3.6	2.4 J+	2.8		5 U	3	7.4	1.6

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2021-2023 Groundwater Extraction and Treatment System Performance Sampling Results

Location			PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent											
Field Sample Date			1/3/2023		2/1/2023		3/1/2023		4/3/2023		5/2/2023		6/1/2023		7/6/2023		8/1/2023		9/5/2023		10/3/2023		11/2/2023		12/1/2023			
Field Sample ID			PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent		PS-Influent			
QC Code			FS		FS		FS		FS		FS		FS		FS		FS		FS		FS		FS		FS			
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier		
SW8260C	1,1,1-Trichloroethane	µg/L	20	U	20	U	20	U	20	U	20	U	10	U	10	U	20	U	20	U	20	U	20	U	1	U	20	U
SW8260C	1,1,2,2-Tetrachloroethane	µg/L	10	U	10	U	10	U	10	U	10	U	5	U	5	U	10	U	10	U	0.5	U	10	U	0.5	U	10	U
SW8260C	1,1,2-Trichloroethane	µg/L	20	U	20	U	20	U	20	U	20	U	10	U	10	U	20	U	20	U	20	U	20	U	1	U	20	U
SW8260C	1,1-Dichloroethene	µg/L	20	U	20	U	20	U	20	U	20	U	10	U	10	U	20	U	20	U	20	U	20	U	1.6	U	20	U
SW8260C	1,2-Dichloroethane	µg/L	20	U	20	U	20	U	20	U	20	U	10	U	10	U	20	U	20	U	20	U	20	U	1	U	20	U
SW8260C	1,2-Dichloroethene (total)	µg/L	530		594	J	704	J	444	J	420		706	J	583	J	760		1100		1207	J	414		744	J	744	J
SW8260C	2-Hexanone	µg/L	200	U	200	U	200	U	200	U	200	U	200	U	100	U	100	U	200	U	200	U	200	U	10	U	200	U
SW8260C	Acetone	µg/L	1000	U	1000	U	1000	U	1000	U	46	J	50	J	500	U	500	U	1000	U	1000	U	1000	U	50	U	1000	U
SW8260C	Carbon disulfide	µg/L	100	U	100	U	100	U	100	U	100	U	100	U	50	U	50	U	100	U	100	U	100	U	5	U	100	U
SW8260C	Carbon tetrachloride	µg/L	100	U	100	U	100	U	100	U	100	U	100	U	50	U	50	U	100	U	100	U	100	U	5	U	100	U
SW8260C	Chloroform	µg/L	40	U	40	U	40	U	40	U	40	U	40	U	20	U	20	U	40	U	40	U	40	U	2	U	40	U
SW8260C	Chloromethane	µg/L	40	U	40	UJ	40	U	40	U	40	U	40	U	20	U	20	U	40	U	40	U	40	U	2	U	40	U
SW8260C	cis-1,2-Dichloroethene	µg/L	530		590		700		440		420		700		580		760		1100		1200		410		740		740	
SW8260C	Methylene chloride	µg/L	100	U	100	U	100	U	100	U	100	U	100	U	50	U	50	U	100	U	100	U	100	U	5	U	100	U
SW8260C	Tetrachloroethene	µg/L	1400		1100		1800		1500		1100		870		920		1100		1400		1100		1200		1200		1800	
SW8260C	Toluene	µg/L	20	U	20	U	20	U	20	U	20	U	6.4	J	10	U	10	U	20	U	20	U	20	U	1	U	20	U
SW8260C	trans-1,2-Dichloroethene	µg/L	20	U	3.8	J	4.4	J	3.6	J	20	U	5.8	J	3.2	J	10	U	20	U	7.2	J	3.7		3.7		3.6	J
SW8260C	Trichloroethene	µg/L	460		390		370		370		290		450		330		440		580		490		370		370		600	
SW8260C	Vinyl chloride	µg/L	13	J	9.2	J	12	J	18	J	9.2	J	19	J	14	J	22		27	J	25	J	18		18		16	J
SW6010C	Aluminum	µg/L	95		100		64		1400		50	U	96		87		120		140		94		46	J	40	J	40	J
SW6010C	Antimony	µg/L																										
SW6010C	Arsenic	µg/L	10	U	10	U	10	U	10	U	57		10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Barium	µg/L	42	J	42	J	37	J	48	J	31	J	38	J	40	J	36	J	46	J	56		49	J	54		54	
SW6010C	Beryllium	µg/L																										
SW6010C	Cadmium	µg/L	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U	4	U
SW6010C	Calcium	µg/L																										
SW6010C	Chromium	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Cobalt	µg/L																										
SW6010C	Copper	µg/L	10	U	10	U	10	U	5.2	J	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Iron	µg/L	130	J+	120	J+	120		940		82		180		130		50	U	280		160	J+	50	U	110	J+	110	J+
SW6010C	Lead	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Magnesium	µg/L																										
SW6010C	Manganese	µg/L	32		31		34		42		35		38		41		33		44		68		42		50		50	
SW6010C	Nickel	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
SW6010C	Potassium	µg/L																										
SW6010C	Selenium	µg/L																									50	U
SW6010C	Silver	µg/L																									10	U
SW6010C	Sodium	µg/L																										
SW6010C	Thallium	µg/L																										
SW6010C	Vanadium	µg/L																										
SW6010C	Zinc	µg/L	10	U	10	U	10	U	4.5	J	23		10	U	10	U	10	U	10	U	20		10	U	10	U	10	U
SW7470A	Mercury	µg/L	0.1	U	0.1	U	0.1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
SM2540F	Total Settleable Solids	mg/L																										
SM2540C	Total Dissolved Solids	mg/L	240		340		270		280		30		340		350		360		330		460		280		330		330	
SM2540D	Total Suspended Solids	mg/L	1.4		3.3		2.2		4.4		0.8	J	2.8		3		2		0.8	J	1.8		7.1	U	2.5	U	2.5	U

Notes:
Blank cell indicates compound was not analyzed for
µg/L = micrograms per liter
mg/L = milligrams per liter
FS = field sample

Qualifiers:
U = not detected
UJ = not detected, estimated value
J = estimated value

J- = estimated value, biased low
J+ = estimated value, biased high

APPENDIX C

2023 LONG-TERM GROUNDWATER MONITORING AND SAMPLING EVENT FIELD RECORDS

WATER LEVEL MONITORING AND WELL INSPECTION CHECKLIST

Site: American Thermostat NYSDEC Site No. 420006
Project #: 3616206098

Date: 10/16/2023
Name(s): Adam Norvelle, Kim Stilson, Mike Ladny

Location ID	Measurement Point Elevation (ft. above msl)	Well Depth (ft.)	Measure Point Reference	Well Diameter (in.)	Measure Point Marked (Y/N)	Protective Casing Stickup (ft.)	TOC-TOR Difference (ft.)	Depth to Water (ft. BMP)	Depth to Bottom of Well (ft. BMP)	Well ID Present (Y/N)	Well Lock/Cap (G/F/P)*	Protective Casing (G/F/P)*	Water in Annular Space (Y/N)	Concrete Pad (G/F/P)*	Well Riser/Cap (G/F/P)*	Comments
Monitoring Wells																
EW-3	259.67	295	TOR	6	N	NA	0.46	96.61	289.59	Y	F	G	N	G	P	2' x 2' vault
EW-4	256.01	322	TOR	6	Y	NA	0.25	93.22	319	Y	F	G	N	G	G	2' x 2' vault
EW-5	259.85	235.2	TOR	6	N	NA	0.55	3.31	235.13	Y	G	G	N	F	G	Located in aboveground vault
EW-8	223.93	318	TOR	6	N	NA	0.49	69.94	319	Y	F	F	N	G	F	15" flush-mount road box
EW-10	234.09	225	TOR	6	N	NA	0.58	12.63	218.71	Y	G	G	N	F	G	15" flush-mount road box
EW-11	231.40	172.2	TOR	6	N	NA	0.77	62.52	170.41	Y	F	F	N	F	G	15" flush-mount road box
EW-12	232.76	270.5	TOR	6	Y	NA	0.38	52.46	265	Y	F	F	N	G	F	2' x 2' vault
EW-13	217.06	360	TOR	6	N	NA	0.50	43.65	349.55	Y	P	NA	N	F	P	15" flush-mount road box
EW-14	234.85	185	TOC													Well inaccessible; located under stored materials on a private property
EW-15	236.37	275	TOR	6	N	NA	3.65	9.06	269.05	Y	F	F	N	G	F	2' x 2' vault
IW-8	239.47	391.8	TOR	6	Y	NA	0.55	76.89	392	Y	G	G	N	G	F	2' x 2' vault
IW-9	224.37	358.1	TOR	6	N	NA	0.75	62.25	360	Y	G	G	N	F	F	15" flush-mount road box
IW-10	235.57	176.3	TOR	6	N	NA	0.55	6.29	176.57	Y	G	G	N	G	G	Located in aboveground vault next to EW-9 well panel
M-4	232.19	200	TOR	4	N	2.33	0.52	63.22	201.91	Y	G	F	N	NA	G	4" diameter steel riser in 6" diameter steel casing
M-5	213.88	200	TOR	4	N	2.29	1.00	40.80	200.76	Y	G	G	N	NA	G	4" diameter steel riser in 6" diameter steel casing
M-6	248.31	100	TOC	6	NR	NR	NR	NM	NM	NR	NR	NR	NR	NR	NR	6" steel casing, homeowner utilizes well for yard
M-8	261.57	200	TOR	4	N	2.25	0.43	12.38	202.11	Y	F	F	N	NA	G	4" diameter steel riser in 6" diameter steel casing
M-9	256.39	200	TOR	4	N	2.40	0.49	80.48	201.82	Y	F	F	N	NA	G	4" diameter steel riser in 6" diameter steel casing
Mueller	183.25	114	TOC	6	N	1.42	NA	14.75	113.25	Y	G	G	NA	NA	G	6" diameter steel casing
MW-104	258.00	83.3	TOR	2	N	NA	0.38	26.60	84.52	Y	G	G	N	G	G	8" flush-mount road box, 2" PVC diameter riser
MW-108	254.72	86.1	TOR	2	Y	NA	0.35	19.62	87.65	Y	G	G	N	F	G	8" flush-mount road box, 2" PVC diameter riser
MW-109	255.96	87.7	TOR	2	N	NA	0.40	17.59	86.19	Y	G	G	N	F	G	8" flush-mount road box, well ID on gripper plug, 2" PVC diameter riser
MW-112	256.60	25.3	TOR	2	Y	NA	0.45	3.71	24.85	Y	G	NA	N	F	F	8" flush-mount road box, 2" PVC diameter riser
MW-113	257.38	22.9	TOR	2	Y	NA	0.30	6.69	22.51	Y	G	NA	N	F	G	8" flush-mount road box, 2" PVC diameter riser
Extraction Wells (Values Collected From Well Panels)								Water Elevation (ft. above msl) ¹	Depth to Water (ft. BMP)							
EW-2	255.29	322	TOC/PLC	6	NA	NA	NA	174.29	31.30	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
EW-6	242.94	325	TOC/PLC	6	NA	NA	NA	See note	65+ (see note)	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
EW-7	251.64	227	TOC/PLC	6	NA	NA	NA	97.00	63.00	NA	Y	G	G	N	G	Pump running at time of inspection? <u>Yes</u> or No
EW-9	236.21	365	TOC/PLC	6	NA	NA	NA	167.18	See note	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
EW-16	248.16	417	TOC/PLC	6	NA	NA	NA	75.62 (see note)	14.80	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
OW-2	257.03	30	TOC/PLC	8	NA	NA	NA	245.01	16.36	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
OW-3	256.81	25	TOC/PLC	8	NA	NA	NA	248.66	8.80	NA	Y	G	G	N	G	Pump running at time of inspection? <u>Yes</u> or No
OW-5	258.20	30	TOC/PLC	8	NA	NA	NA	250.98	17.56	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
OW-7	254.57	25	TOC/PLC	8	NA	NA	NA	250.06	5.40	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
OW-13	259.95	29.5	TOC/PLC	8	NA	NA	NA	252.03	22.04	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
OW-14	261.24	30	TOC/PLC	8	NA	NA	NA	260.72	7.80	NA	Y	G	G	N	G	Pump running at time of inspection? Yes or <u>No</u>
OW-16	259.81	30	TOC/PLC	8	NA	NA	NA	248.84	37.40	NA	Y	G	G	N	F	Pump running at time of inspection? <u>Yes</u> or No

Notes:
EW-6 - Battery backup in well panel not functioning; therefore, well panel is not receiving power and value could not be recorded from HMI. Could not obtain depth to water reading. Water level meter caught on well equipment at approximately 65 ft. BMP and would not go down further.
EW-16 - Level transducer not functioning; therefore, value is incorrect. M-6 - Inaccessible. Well contains dedicated cap that cannot be removed.
EW-9 - Water level meter not able function properly to collect measurement due to particles/debris present in groundwater.
***Poor or notable observations require input in "Comments" column**

NM = not measured
NR = not recorded
ft. = feet
in. = inches
msl = mean sea level
TOC = top of casing
TOR = top of riser
TOV = top of vault
G = good
F = fair
P = poor
N = no
Y = yes
BMP = below measurement point
NA = not applicable
PLC = programmable logic controller
PVC = polyvinyl chloride
¹ Value collected from well panel
Checked By: K. Amann 12/1/23

10/2023

15-Month Long-Term Monitoring (LTM) Sampling

Well ID/ Sampling Location	Sample Description	Well Depth (ft)	Sample Depth (ft)	Sample ID	Sampler Initials	Sample Date	Sample Time	Comments
Monitoring Wells								
CE-1 ⁽¹⁾	Before filters	535	unknown	CE-1 BEF				
CE-2 ⁽²⁾	Before filters	287	unknown	CE-2 BEF	A.N.M.L.K.S.	10/17/23	1210	
EW-3	PDB	295	275	EW-3			1345	
EW-4	PDB	322	302	EW-4			1300	
EW-5	PDB	235	150	EW-5			1500	
EW-8	PDB	318	200	EW-8			1125	
EW-11	PDB	172	117	EW-11			1045	
EW-12	PDB	270.5	115	EW-12			1030	
EW-13	PDB	360	200	EW-13			0945	
IW-8	PDB	392	339	IW-8			1440	
IW-9	PDB	358	333	IW-9			1100	
IW-10	PDB	176	40	IW-10			1430	
M-4	PDB	200	130	M-4			1050	
M-5	PDB	200	129	M-5			0930	
M-6	Grab	100	pump intake	M-6			1010	
M-8	PDB	200	195	M-8			1230	
M-9	PDB	200	195	M-9			1245	
Mueller	PDB	114	69	Mueller			0910	
MW-104	PDB	83	79.4	MW-104			1400	
MW-109	PDB	88	69	MW-109			1315	
MW-112	PDB	25	20	MW-112			1515	
MW-113	PDB	23	20	MW-113			1530	
Active Bedrock Extraction Wells								
EW-2 ⁽²⁾	Grab	322	284	EW-2				-
EW-6	Grab	325	285	EW-6				- Pump not working
EW-7	Grab	227	200	EW-7	A.N.M.L.K.S.	10/18/23	1130	
EW-9	Grab	365	307	EW-9				- Pump not working
EW-16	Grab	417	157	EW-16	A.N.M.L.K.S.	10/18/23	1100	
Active Overburden Extraction Wells								
OW-2	Grab	30	23	OW-2	A.N.M.L.K.S.	10/18/23	1030	
OW-3	Grab	25	pump intake	OW-3			1020	
OW-5	Grab	30	23	OW-5			1000	
OW-7	Grab	25	23	OW-7				
OW-13	Grab	29.5	23	OW-13			0930	Cu300 Fault "Dry Running"
OW-14	Grab	30	24	OW-14			0915	Cu300 Fault "Dry Running"
OW-16	Grab	30	23	OW-16			0900	
Field Blank								
Field Blank	PDB	NA	NA	Field Blank	A.N.M.L.	10/17/23	1545	

Notes:

- Samples to be analyzed for site-specific 19 compound list for VOCs by Method 8260.

⁽¹⁾ CE-1 not in service; acts as an emergency backup well to CE-2 for Country Estates and therefore does not get sampled if CE-2 is in service.

⁽²⁾ EW-2 off-line due to non-functioning pump. Well cannot be sampled.

PDB = passive diffusion bag

Checked by: **K. Amann 12/1/23**

MONITORING WELLS - SUBMERSIBLE PUMP
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: CE-2

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: NA feet Depth to Bottom: NA feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: NA 6 inches

Residential supply well grab sample.

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Sample Method: Grab Number of Containers: 2 vOA

Sample Collection Time: 12:0 Intended Analysis: VOCs by Method 8260

Notes:

Sample taken from post treatment sample nose. Dominic was present and indicated that post treatment sample nose was historically where samples were collected. Purged for 2 min and collected sample.

°C = degrees Celcius
°F = degrees Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units
TOC = top of casing
TOR = top of riser
TOV = top of vault
VOCs = volatile organic compounds

CE-2 is a private water supply well for the Country Estates property. Depth to water and depth to bottom not measured due to secured well cap.

Checked by: K. Amann 12/1/23

MONITORING WELLS - SUBMERSIBLE PUMP
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: CE-2

Sample Date: 11/14/2023

Sampler Name(s): Mike Ladny

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 60 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: Not measured feet Depth to Bottom: Not measured feet

Measurement Point Reference: Not applicable ~~TOC / TOR / TOV~~ Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Sample Method: Grab

Number of Containers: 2

Sample Collection Time: 1330

Intended Analysis: VOCs by Method 8260

Notes:

Re-sample of CE-2. LTM sample collected on 10/17/23 was after treatment. Returned to collect sample before treatment. Dominick Caropreso provided access to the CE-2 pump house.

°C = degrees Celcius

TOC = top of casing

°F = degrees Fahrenheit

TOR = top of riser

mS/cm = millisiemens per centimeter

TOV = top of vault

NTU = nephelometric turbidity units

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: CW-3

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 96.61 feet Depth to Bottom: 289.59 feet

Measurement Point Reference: TOC TOR TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 1345 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes No

Notes:

PDB deployed at 272.00°.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-4

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory Unsatisfactory (explain in notes)

Depth to Water: 93.22 feet Depth to Bottom: 319.00 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 1300 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB Deployed at 298.00'.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-5

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 3.31 feet Depth to Bottom: 235.13 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA's

Sample Collection Time: 1500 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes: **PDB**

~~PDB~~ Deployed at 209'

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-8
Sample Date: 10/17/23
Sampler Name(s): A.N., M.L., K.S.
Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 69.94 feet Depth to Bottom: 319.00 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 1125 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB deployed at 198.00'

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-11

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 62.52 feet Depth to Bottom: 120.41 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 1045 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB Deployed at 117.00!

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-12

Sample Date: 10-17-23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 52.46 feet Depth to Bottom: 265.00 feet

Measurement Point Reference: TOC / TOR TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 1030 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB bag deployed at 106 feet.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-13

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 43.65 feet Depth to Bottom: 349.55 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 0945 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB Deployed at 196.00'

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: IW-8

Sample Date: 10/17/23

Sampler Name(s): AN, M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 57 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 76.89 feet Depth to Bottom: 392.00 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 UDAs

Sample Collection Time: 1430-1440 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB Deployed at ~~38.00'~~ 336'

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: 1W-9

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 62.25 feet Depth to Bottom: 360 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 vials

Sample Collection Time: 1100 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB deployed at 326.50'.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: IW-10

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 57 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: ~~16.29~~ 6.29 feet Depth to Bottom: 176.57 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOAS

Sample Collection Time: 1440^{KS} 1430 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB deployed at ~~336.0'~~ 38'

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-4

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., L.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 63.22 feet Depth to Bottom: 201.91 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 4 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 vOA

Sample Collection Time: 1050 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: (Yes) / No

Notes:

PDB deployed at 129.00'

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-5

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 54 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 40.80 feet Depth to Bottom: 200.76 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 4 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: ≥ 10A

Sample Collection Time: 0930 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB deployed at 125.50'

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - SUBMERSIBLE PUMP
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-6

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: NM feet Depth to Bottom: ~100' feet

Measurement Point Reference: TOC TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Sample Method: Grab Number of Containers: 2 VOAS

Sample Collection Time: 1010 Intended Analysis: VOCs by Method 8260

Notes:

Sample taken from hose. Purge 20 gallons of water before sampled.

Well contains a dedicated cap that cannot be removed to collect depth to water and depth to bottom measurements. Depth to bottom recorded above is based on historical measurements. Well contains a dedicated pump. Pump is activated to collect sample.

°C = degrees Celcius

TOC = top of casing

°F = degrees Fahrenheit

TOR = top of riser

mS/cm = millisiemens per centimeter

TOV = top of vault

NTU = nephelometric turbidity units

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-8

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 12.38 feet Depth to Bottom: 202.11 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 4 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 1230 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB bag deployed at 199.0'.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-9

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 80.48 feet Depth to Bottom: 201.82 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 4 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 1245 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB deployed at 198'00.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: Mueller

Sample Date: 10/17/23

Sampler Name(s): A. N., M. L., K. S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 52 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 14.75 feet Depth to Bottom: 113.25 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 Vol

Sample Collection Time: 0910 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes No

Notes:

PDB deployed at 106.0 ft.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-104

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 26.60 feet Depth to Bottom: 89.52 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 2 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA's

Sample Collection Time: 1400 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: (Yes) / No

Notes:

PDB deployed at 78.0'.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-109

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., KS

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 55 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 17.54 feet Depth to Bottom: 86.19 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 2 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 1315 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

Bottom of bag @ 69.0'

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-112

Sample Date: 10/17/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun cloudy Dry Humid Temperature: 57 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 3.71 feet Depth to Bottom: 24.85 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 2 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOAS

Sample Collection Time: 1515 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes / No

Notes:

PDB bag deployed at 20.70!

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-113

Sample Date: 10/17/23

Sampler Name(s): A.N., K.S., M.L.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 57 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Depth to Water: 6.69 feet Depth to Bottom: 22.51 feet

Measurement Point Reference: TOC / TOR / TOV Well Diameter: 2 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 vials

Sample Collection Time: 1530 Intended Analysis: VOCs by Method 8260

New PDB Deployed?: Yes No

Notes:

PDB deployed at 19.60'.

°C = degrees Celcius

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

PDB = passive diffusion bag

TOC = top of casing

TOR = top of riser

TOV = top of vault

VOCs = volatile organic compounds

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-7

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun ☒ Cloudy Dry Humid Temperature: 52 °F

Well Condition: ☒ Satisfactory / Unsatisfactory (explain in notes)

Initial Water Level: 83.00 ft. ☒ ft. above msl Reading ☒ Transducer / Manual DTW

Pump Intake Depth: 51.64 ft. ☒ ft. above msl Pump Operation: ☒ Auto / Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: cloudy Odor: odor present
Other: fine black particulates NAPL present? Yes / ☒ No

Sample Method: Grab Number of Containers: 2 Vials

Sample Collection Time: 1130 Intended Analysis: VOCs by Method 8260

Final Water Level: 83.00 ft. ☒ ft. above msl Reading ☒ Transducer / Manual DTW

Notes:

NM = not measured

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-16

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 50 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Initial Water Level: 75.72 ft. ft. above msl Reading: Transducer / Manual DTW

Pump Intake Depth: 91.16 ft. ft. above msl Pump Operation: Auto / Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear Odor: None
Other: NA NAPL present? Yes / No

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 1100 Intended Analysis: VOCs by Method 8260

Final Water Level: 75.70 ft. ft. above msl Reading: Transducer / Manual DTW

Notes:

Level transducer not functioning properly; therefore, initial and final water levels recorded are incorrect.

NM = not measured

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-2

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 50 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Initial Water Level: 245.02 ft. / ft. above msl Reading: Transducer / Manual DTW

Pump Intake Depth: 234.03 ft. / ft. above msl Pump Operation: Auto / Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear Odor: no odor
Other: none NAPL present? Yes No

Sample Method: Grab Number of Containers: 2 vials

Sample Collection Time: 1030 Intended Analysis: VOCs by Method 8260

Final Water Level: 245.02 ft. / ft. above msl Reading: Transducer / Manual DTW

Notes:

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-3

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 50 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Initial Water Level: 239.61 ft. / ft. above msl Reading: Transducer / Manual DTW

Pump Intake Depth: Not available ft. / ft. above msl Pump Operation: Auto Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear
Other: none

Odor: none
NAPL present? Yes / No

Sample Method: Grab

Number of Containers: 2 vials

Sample Collection Time: 1020

Intended Analysis: VOCs by Method 8260

Final Water Level: 239.71 ft. / ft. above msl

Reading: Transducer / Manual DTW

Notes:

NM = not measured

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OCW-5

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 50 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Initial Water Level: 251.20 ft. / ft. above msl Reading: Transducer / Manual DTW

Pump Intake Depth: 235.2 ft. / ft. above msl Pump Operation: Auto / Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear Odor: None
Other: fine black particles NAPL present? Yes / No

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 1000 Intended Analysis: VOCs by Method 8260

Final Water Level: 248.30 ft. / ft. above msl Reading: Transducer / Manual DTW

Notes:

NM = not measured

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-7

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 50 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Initial Water Level: 250.21 ft. / ft. above msl Reading: Transducer / Manual DTW

Pump Intake Depth: 231.37 ft. / ft. above msl Pump Operation: Auto / Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: NA Odor: NA
Other: NA NAPL present? Yes / No

Sample Method: Grab Number of Containers: NA

Sample Collection Time: NA Intended Analysis: VOCs by Method 8260

Final Water Level: NM ft. / ft. above msl Reading: Transducer / Manual DTW

Notes:

When starting Cu300 control, controller error light
"Dry Running". Red light kicks on. Therefore, pump would not
activate and sample could not be collected. NM = not measured. NA = not applicable.

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-13

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 50 °F

Well Condition: Satisfactory Unsatisfactory (explain in notes)

Initial Water Level: 252.02 ft. / ft. above msl Reading: Transducer / Manual DTW

Pump Intake Depth: 236.95 ft. / ft. above msl Pump Operation: Auto / Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: NA Odor: NA
Other: NA NAPL present? Yes / No

Sample Method: Grab Number of Containers: —

Sample Collection Time: NA Intended Analysis: VOCs by Method 8260

Final Water Level: — ft. / ft. above msl Reading: Transducer / Manual DTW

Notes:

When starting CU300 control, controller error
light "Dry Running". Red light kicks on. Therefore, pump
would not activate and sample could not be collected. NM = not measured. NA = not applicable.

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-14

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 50 °F

Well Condition: Satisfactory / Unsatisfactory (explain in notes)

Initial Water Level: 261.73 ft. / ft. above msl Reading: Transducer / Manual DTW

Pump Intake Depth: 237.24 ft. / ft. above msl Pump Operation: Auto / Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear
Other: NA

Odor: None
NAPL present? Yes No

Sample Method: Grab Number of Containers: 2 vials

Sample Collection Time: 0915 Intended Analysis: VOCs by Method 8260

Final Water Level: 261.39 ft. / ft. above msl Reading: Transducer / Manual DTW

Notes:

NM = not measured

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: 012-16

Sample Date: 10/18/23

Sampler Name(s): A.N., M.L., K.S.

Weather Conditions: Rain Snow Sun Cloudy Dry Humid Temperature: 50 °F

Well Condition: Satisfactory Unsatisfactory (explain in notes)

Initial Water Level: 248.57 ft. / ft. above msl Reading: Transducer / Manual DTW

Pump Intake Depth: 234.03 (KS) ft. / ft. above msl Pump Operation: Auto Manual

Depth to Water: NM ft. / ft. above msl

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear Odor: None
Other: NA NAPL present? Yes / No

Sample Method: Grab Number of Containers: 2 VOAS

Sample Collection Time: 0900 Intended Analysis: VOCs by Method 8260

Final Water Level: 246.52 ft. / ft. above msl Reading: Transducer / Manual DTW

Notes:

NM = not measured

°C = degrees Celcius

ft. = feet

msl = mean sea level

NTU = nephelometric turbidity units

°F = degrees Fahrenheit

mS/cm = millisiemens per centimeter

NAPL = non-aqueous phase liquid

VOCs = volatile organic compounds

DTW = depth to water

Checked by: K. Amann 12/1/23

APPENDIX D

CATEGORY A REVIEW, OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING

**CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK**

1.0 INTRODUCTION

Groundwater samples were collected in October and November 2023 at the American Thermostat Site in South Cairo, New York, and shipped to Pace Analytical Laboratory in Longmeadow, Massachusetts, for analysis. Samples were analyzed by the following United States Environmental Protection Agency (USEPA) method:

- Project List Volatile Organic Compounds (VOCs) by Method 8260

Results were reported in the following sample delivery groups (SDGs):

- 23J2524
- 23J2533
- 23K1915

Sample event information included in this chemistry review is presented in the following Tables:

- Table 1 – Summary of Samples and Analytical Methods
- Table 2 – Summary of Analytical Results
- Table 3 – Summary of Qualification Actions

Laboratory deliverables included:

- Chain of custody documentation plus batch quality control results.

The Category A Review included the following evaluations. Data review checklists are provided as Attachment A.

- Lab Report Narrative Review
- Data Package Completeness and COC records (Table 1 verification)
- Sample Preservation and Holding Times
- QC Blanks
- Laboratory Control Samples (LCS)
- Field Duplicate Evaluation (none collected)
- Matrix spike and Matrix Spike Duplicate (MS/MSD) Evaluation
- Surrogates (if applicable)
- Reporting Limits
- Electronic Data Qualification and Verification

The following laboratory data qualifiers or data review qualifiers are used in the final data presentation:

U = target analyte is not detected at or above the reporting limit
J = concentration is estimated

Results are interpreted to be usable as reported by the laboratory or as qualified in the following sections.

2.0 POTENTIAL DATA LIMITATIONS

Based on the Category A Review the majority of data meet the quality objectives; however, the following potential limitations were identified:

Acetone (3.2 ug/L) was detected at a concentration greater than the reporting limit in the field blank associated with a subset of samples in SDG 23J2524. Acetone results in associated samples were qualified as non-detect (U) at the reporting limit. Qualified results are summarized in Table 3 with reason code BL2.

3.0 ADDITIONAL QC EXCEEDANCES AND OBSERVATIONS

There were no additional observations and quality control exceedances not specifically addressed above (Section 2.0) or included in Table 3. Unless presented in Table 3, sample results are interpreted to be usable as reported by the laboratory.

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

Data Validator: Amber Jones



Date: January 10, 2023

Reviewed by: Julie Ricardi



Date: January 10, 2024

Standard Table Notes:

Sample Type (QC Code)

FS – field sample
FD – field duplicate
TB – trip blank
EB – equipment blank
FB – field blank

Matrix

GW – ground water
BW – blank water
TW – tap water
SV – soil vapor
SED - sediment

Units

mg/L – milligrams per liter
ng/L – nanograms per liter
µg/L – micrograms per liter
mg/kg – milligrams per kilogram
µg/kg – micrograms per kilogram
µg/m³ – micrograms per cubic meter

Qualifiers

U – not detected above quantitation limit
J – estimated quantity
J+ - estimated quantity, biased high
J- - estimated quantity, biased low
R – data unusable

Fraction

T – total
D – dissolved
N – normal

Qualification Reason Codes

BL1 – method blank qualifier
BL2 – field or trip blank qualifier
CCV – continuing calibration verification recovery outside limits
CCV%D – continuing calibration verification percent difference exceeds goal
CCVRRF – continuing calibration relative response factor low
CI – chromatographic interference present
DCPD – dual column percent difference exceeds limit
E – result exceeds calibration range
FD – field duplicate precision goal exceeded
FP – false positive interference
HT – holding time for prep or analysis exceeded
HTG – holding time for prep or analysis grossly exceeded
ICV – initial calibration verification recovery outside limit
ICVRRF – initial calibration verification relative response factor low
ICVRS D – initial calibration verification % relative standard deviation exceeds goal
ISH – internal standard response greater than limit
ISL – internal standard response less than limit
LCSH – laboratory control sample recovery high
LCSL – laboratory control sample recovery low
LCSRPD – laboratory control sample/duplicate relative % difference precision goal exceeded
LD – lab duplicate precision goal exceeded
MSH – matrix spike and/or MS duplicate recovery high
MSL – matrix spike and/or MS duplicate recovery low
MSRPD – matrix spike/duplicate relative % difference precision goal exceeded
N – analyte identification is not certain
PEM – performance evaluation mixture exceeds limit
PM – sample percent moisture exceeds EPA guideline
SD – serial dilution result exceeds percent difference limit
SP – sample preservation/collection does not meet method requirement
SSH – surrogate recovery high
SSL – surrogate recovery low
TD – dissolved concentration exceeds total

TABLE 1 - SUMMARY OF SAMPLES AND ANALYTICAL METHODS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Lab SDG	Location	Field Sample ID	Sample Date	Lab Sample ID	Media	Method Class	VOCs
						Analysis Method Fraction	SW8260 N Count
23J2524	EW-16	EW-16	10/18/2023	23J2524-04	GW	FS	18
23J2524	EW-7	EW-7	10/18/2023	23J2524-03	GW	FS	18
23J2524	MW-113	MW-113	10/17/2023	23J2524-01	GW	FS	18
23J2524	OW-14	OW-14	10/18/2023	23J2524-08	GW	FS	18
23J2524	OW-16	OW-16	10/18/2023	23J2524-09	GW	FS	18
23J2524	OW-2	OW-2	10/18/2023	23J2524-05	GW	FS	18
23J2524	OW-3	OW-3	10/18/2023	23J2524-06	GW	FS	18
23J2524	OW-5	OW-5	10/18/2023	23J2524-07	GW	FS	18
23J2524	QC	Field Blank	10/17/2023	23J2524-02	BW	FB	18
23J2524	QC	Trip Blank	10/18/2023	23J2524-10	BW	TB	18
23J2533	CE-2	CE-2 AFT	10/17/2023	23J2533-01	GW	FS	18
23J2533	EW-11	EW-11	10/17/2023	23J2533-06	GW	FS	18
23J2533	EW-12	EW-12	10/17/2023	23J2533-07	GW	FS	18
23J2533	EW-13	EW-13	10/17/2023	23J2533-08	GW	FS	18
23J2533	EW-3	EW-3	10/17/2023	23J2533-02	GW	FS	18
23J2533	EW-4	EW-4	10/17/2023	23J2533-03	GW	FS	18
23J2533	EW-5	EW-5	10/17/2023	23J2533-04	GW	FS	18
23J2533	EW-8	EW-8	10/17/2023	23J2533-05	GW	FS	18
23J2533	IW-10	IW-10	10/17/2023	23J2533-11	GW	FS	18
23J2533	IW-8	IW-8	10/17/2023	23J2533-09	GW	FS	18
23J2533	IW-9	IW-9	10/17/2023	23J2533-10	GW	FS	18
23J2533	M-4	M-4	10/17/2023	23J2533-12	GW	FS	18
23J2533	M-5	M-5	10/17/2023	23J2533-13	GW	FS	18
23J2533	M-6	M-6	10/17/2023	23J2533-14	GW	FS	18
23J2533	M-8	M-8	10/17/2023	23J2533-15	GW	FS	18
23J2533	M-9	M-9	10/17/2023	23J2533-16	GW	FS	18
23J2533	MUELLER	Mueller	10/17/2023	23J2533-17	GW	FS	18
23J2533	MW-104	MW-104	10/17/2023	23J2533-18	GW	FS	18
23J2533	MW-109	MW-109	10/17/2023	23J2533-19	GW	FS	18
23J2533	MW-112	MW-112	10/17/2023	23J2533-20	GW	FS	18
23K1915	CE-2	CE-2 BEF	11/14/2023	23K1915-02	GW	FS	18
23K1915	QC	Trip Blank	11/14/2023	23K1915-01	BW	TB	18

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Location			CE-2		CE-2		EW-11		EW-12	
Lab Sample Delivery Group			23J2533		23K1915		23J2533		23J2533	
Field Sample Date			10/17/2023		11/14/2023		10/17/2023		10/17/2023	
Field Sample ID			CE-2 AFT		CE-2 BEF		EW-11		EW-12	
Qc Code			FS		FS		FS		FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	1,1,2,2-Tetrachloroethane	UG/L	0.5	U	0.5	U	0.5	U	0.5	U
SW8260	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	1,1-Dichloroethene	UG/L	1	U	1	U	1	U	1	U
SW8260	1,2-Dichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	2-Hexanone	UG/L	10	U	10	U	10	U	10	U
SW8260	Acetone	UG/L	50	U	4	J	19	J	50	U
SW8260	Carbon disulfide	UG/L	5	U	5		5	U	5	U
SW8260	Carbon tetrachloride	UG/L	5	U	5	U	5	U	5	U
SW8260	Chloroform	UG/L	1.7	J	2.6		2	U	2	U
SW8260	Chloromethane	UG/L	2	U	0.82	J	2	U	2	U
SW8260	cis-1,2-Dichloroethene	UG/L	1	U	1	U	2.3		0.35	J
SW8260	Methylene chloride	UG/L	5	U	5	U	5	U	5	U
SW8260	Tetrachloroethene	UG/L	1	U	1.1		1	U	2.5	
SW8260	Toluene	UG/L	1	U	1	U	1	U	1	U
SW8260	trans-1,2-Dichloroethene	UG/L	1	U	1	U	1	U	1	U
SW8260	Trichloroethene	UG/L	1	U	0.29	J	1	U	0.28	J
SW8260	Vinyl chloride	UG/L	2	U	2	U	2	U	2	U

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Location			EW-13		EW-16		EW-3		EW-4	
Lab Sample Delivery Group			23J2533		23J2524		23J2533		23J2533	
Field Sample Date			10/17/2023		10/18/2023		10/17/2023		10/17/2023	
Field Sample ID			EW-13		EW-16		EW-3		EW-4	
Qc Code			FS		FS		FS		FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	UG/L	1	U	25	U	1	U	1	U
SW8260	1,1,2,2-Tetrachloroethane	UG/L	0.5	U	12	U	0.5	U	0.5	U
SW8260	1,1,2-Trichloroethane	UG/L	1	U	25	U	1	U	1	U
SW8260	1,1-Dichloroethene	UG/L	1	U	25	U	1	U	1	U
SW8260	1,2-Dichloroethane	UG/L	1	U	25	U	1	U	1	U
SW8260	2-Hexanone	UG/L	10	U	250	U	10	U	10	U
SW8260	Acetone	UG/L	160		1,200	U	32	J	57	
SW8260	Carbon disulfide	UG/L	5	U	120	U	5	U	5	U
SW8260	Carbon tetrachloride	UG/L	5	U	120	U	5	U	5	U
SW8260	Chloroform	UG/L	2	U	50	U	2	U	2	U
SW8260	Chloromethane	UG/L	2	U	50	U	2	U	2	U
SW8260	cis-1,2-Dichloroethene	UG/L	2.8		1,000		2.7		5.2	
SW8260	Methylene chloride	UG/L	5	U	120	U	5	U	5	U
SW8260	Tetrachloroethene	UG/L	27		2,100		1	U	1	U
SW8260	Toluene	UG/L	1	U	25	U	1	U	1	U
SW8260	trans-1,2-Dichloroethene	UG/L	1	U	25	U	1	U	1	U
SW8260	Trichloroethene	UG/L	2.6		1,200		1	U	1	U
SW8260	Vinyl chloride	UG/L	2	U	18	J	9.7		12	

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Location			EW-5		EW-7		EW-8		IW-10	
Lab Sample Delivery Group			23J2533		23J2524		23J2533		23J2533	
Field Sample Date			10/17/2023		10/18/2023		10/17/2023		10/17/2023	
Field Sample ID			EW-5		EW-7		EW-8		IW-10	
Qc Code			FS		FS		FS		FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	UG/L	2	U	4	U	1	U	1	U
SW8260	1,1,2,2-Tetrachloroethane	UG/L	1	U	2	U	0.5	U	0.5	U
SW8260	1,1,2-Trichloroethane	UG/L	2	U	4	U	1	U	1	U
SW8260	1,1-Dichloroethene	UG/L	0.52	J	4	U	1	U	1	U
SW8260	1,2-Dichloroethane	UG/L	2	U	4	U	1	U	1	U
SW8260	2-Hexanone	UG/L	20	U	40	U	10	U	10	U
SW8260	Acetone	UG/L	62	J	200	U	7.1	J	25	J
SW8260	Carbon disulfide	UG/L	10	U	20	U	5	U	5	U
SW8260	Carbon tetrachloride	UG/L	10	U	20	U	5	U	5	U
SW8260	Chloroform	UG/L	4	U	8	U	2	U	2	U
SW8260	Chloromethane	UG/L	4	U	8	U	2	U	2	U
SW8260	cis-1,2-Dichloroethene	UG/L	210		230		2.7		1.8	
SW8260	Methylene chloride	UG/L	10	U	20	U	5	U	5	U
SW8260	Tetrachloroethene	UG/L	150		40		1	U	0.28	J
SW8260	Toluene	UG/L	43		4	U	1	U	1	U
SW8260	trans-1,2-Dichloroethene	UG/L	1.3	J	5		0.48	J	1	U
SW8260	Trichloroethene	UG/L	63		27		1	U	0.61	J
SW8260	Vinyl chloride	UG/L	6.8		4	J	2.2		2	U

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Location			IW-8		IW-9		M-4		M-5	
Lab Sample Delivery Group			23J2533		23J2533		23J2533		23J2533	
Field Sample Date			10/17/2023		10/17/2023		10/17/2023		10/17/2023	
Field Sample ID			IW-8		IW-9		M-4		M-5	
Qc Code			FS		FS		FS		FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	1,1,2,2-Tetrachloroethane	UG/L	0.5	U	0.5	U	0.5	U	0.5	U
SW8260	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	1,1-Dichloroethene	UG/L	1	U	1	U	1	U	1	U
SW8260	1,2-Dichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	2-Hexanone	UG/L	10	U	10	U	10	U	10	U
SW8260	Acetone	UG/L	30	J	24	J	94		63	
SW8260	Carbon disulfide	UG/L	5	U	5	U	5	U	5	U
SW8260	Carbon tetrachloride	UG/L	5	U	5	U	5	U	5	U
SW8260	Chloroform	UG/L	2	U	2	U	2	U	2	U
SW8260	Chloromethane	UG/L	2	U	2	U	2	U	2	U
SW8260	cis-1,2-Dichloroethene	UG/L	1	U	17		1	U	11	
SW8260	Methylene chloride	UG/L	5	U	5	U	5	U	5	U
SW8260	Tetrachloroethene	UG/L	1	U	6.6		1	U	1	U
SW8260	Toluene	UG/L	1	U	1	U	1	U	1	U
SW8260	trans-1,2-Dichloroethene	UG/L	1	U	1	U	1	U	1	U
SW8260	Trichloroethene	UG/L	0.86	J	2.2		1	U	1	U
SW8260	Vinyl chloride	UG/L	2	U	1.2	J	2	U	4.6	

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Location Lab Sample Delivery Group Field Sample Date Field Sample ID Qc Code			M-6 23J2533 10/17/2023 M-6 FS		M-8 23J2533 10/17/2023 M-8 FS		M-9 23J2533 10/17/2023 M-9 FS		MUELLER 23J2533 10/17/2023 Mueller FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	1,1,2,2-Tetrachloroethane	UG/L	0.5	U	0.5	U	0.5	U	0.5	U
SW8260	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	1,1-Dichloroethene	UG/L	1	U	1	U	1	U	1	U
SW8260	1,2-Dichloroethane	UG/L	1	U	1	U	1	U	1	U
SW8260	2-Hexanone	UG/L	10	U	10	U	10	U	10	U
SW8260	Acetone	UG/L	2.2	J	84		81		27	J
SW8260	Carbon disulfide	UG/L	5	U	5	U	5	U	5	U
SW8260	Carbon tetrachloride	UG/L	5	U	5	U	5	U	5	U
SW8260	Chloroform	UG/L	2	U	2	U	2	U	2	U
SW8260	Chloromethane	UG/L	2	U	2	U	2	U	2	U
SW8260	cis-1,2-Dichloroethene	UG/L	1	U	0.35	J	1	U	0.41	J
SW8260	Methylene chloride	UG/L	5	U	5	U	5	U	5	U
SW8260	Tetrachloroethene	UG/L	1	U	1	U	1	U	1	U
SW8260	Toluene	UG/L	1	U	8.2		1	U	1	U
SW8260	trans-1,2-Dichloroethene	UG/L	1	U	0.32	J	1	U	1	U
SW8260	Trichloroethene	UG/L	1	U	1	U	1	U	1	U
SW8260	Vinyl chloride	UG/L	2	U	0.32	J	2	U	2	U

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Location			MW-104		MW-109		MW-112		MW-113	
Lab Sample Delivery Group			23J2533		23J2533		23J2533		23J2524	
Field Sample Date			10/17/2023		10/17/2023		10/17/2023		10/17/2023	
Field Sample ID			MW-104		MW-109		MW-112		MW-113	
Qc Code			FS		FS		FS		FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U	20	U
SW8260	1,1,2,2-Tetrachloroethane	UG/L	0.5	U	0.5	U	0.5	U	10	U
SW8260	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U	20	U
SW8260	1,1-Dichloroethene	UG/L	1	U	1	U	1	U	20	U
SW8260	1,2-Dichloroethane	UG/L	1	U	1	U	1	U	20	U
SW8260	2-Hexanone	UG/L	10	U	10	U	10	U	200	U
SW8260	Acetone	UG/L	67		31	J	130		1,000	U
SW8260	Carbon disulfide	UG/L	5	U	5	U	5	U	100	U
SW8260	Carbon tetrachloride	UG/L	5	U	5	U	5	U	100	U
SW8260	Chloroform	UG/L	2	U	2	U	2	U	40	U
SW8260	Chloromethane	UG/L	2	U	2	U	2	U	40	U
SW8260	cis-1,2-Dichloroethene	UG/L	1	U	1	U	0.86	J	15	J
SW8260	Methylene chloride	UG/L	5	U	5	U	5	U	100	U
SW8260	Tetrachloroethene	UG/L	1	U	1	U	1	U	1,900	
SW8260	Toluene	UG/L	1	U	1	U	1	U	20	U
SW8260	trans-1,2-Dichloroethene	UG/L	1	U	1	U	1	U	20	U
SW8260	Trichloroethene	UG/L	1	U	1	U	0.94	J	11	J
SW8260	Vinyl chloride	UG/L	2	U	2	U	2	U	40	U

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Location			OW-14		OW-16		OW-2		OW-3	
Lab Sample Delivery Group			23J2524		23J2524		23J2524		23J2524	
Field Sample Date			10/18/2023		10/18/2023		10/18/2023		10/18/2023	
Field Sample ID			OW-14		OW-16		OW-2		OW-3	
Qc Code			FS		FS		FS		FS	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	UG/L	40	U	5	U	20	U	100	U
SW8260	1,1,2,2-Tetrachloroethane	UG/L	20	U	2.5	U	10	U	50	U
SW8260	1,1,2-Trichloroethane	UG/L	40	U	5	U	20	U	100	U
SW8260	1,1-Dichloroethene	UG/L	40	U	5	U	20	U	100	U
SW8260	1,2-Dichloroethane	UG/L	40	U	5	U	20	U	100	U
SW8260	2-Hexanone	UG/L	400	U	50	U	200	U	1000	U
SW8260	Acetone	UG/L	2,000	U	250	U	1,000	U	5,000	U
SW8260	Carbon disulfide	UG/L	200	U	25	U	100	U	500	U
SW8260	Carbon tetrachloride	UG/L	200	U	25	U	100	U	500	U
SW8260	Chloroform	UG/L	80	U	10	U	40	U	200	U
SW8260	Chloromethane	UG/L	80	U	10	U	40	U	200	U
SW8260	cis-1,2-Dichloroethene	UG/L	1,000		180		130		230	
SW8260	Methylene chloride	UG/L	200	U	25	U	100	U	500	U
SW8260	Tetrachloroethene	UG/L	2,500		310		1,200		11,000	
SW8260	Toluene	UG/L	40	U	5	U	20	U	100	U
SW8260	trans-1,2-Dichloroethene	UG/L	40	U	5	U	20	U	100	U
SW8260	Trichloroethene	UG/L	830		50		26		200	
SW8260	Vinyl chloride	UG/L	34	J	3.4	J	40	U	200	U

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Location			OW-5		QC		QC		QC	
Lab Sample Delivery Group			23J2524		23J2524		23J2524		23K1915	
Field Sample Date			10/18/2023		10/17/2023		10/18/2023		11/14/2023	
Field Sample ID			OW-5		Field Blank		Trip Blank		Trip Blank	
Qc Code			FS		FB		TB		TB	
Method	Parameter	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260	1,1,1-Trichloroethane	UG/L	40	U	1	U	1	U	1	U
SW8260	1,1,2,2-Tetrachloroethane	UG/L	20	U	0.5	U	0.5	U	0.5	U
SW8260	1,1,2-Trichloroethane	UG/L	40	U	1	U	1	U	1	U
SW8260	1,1-Dichloroethene	UG/L	40	U	1	U	1	U	1	U
SW8260	1,2-Dichloroethane	UG/L	40	U	1	U	1	U	1	U
SW8260	2-Hexanone	UG/L	400	U	10	U	10	U	10	U
SW8260	Acetone	UG/L	2,000	U	3.2	J	50	U	50	U
SW8260	Carbon disulfide	UG/L	200	U	5	U	5	U	5	U
SW8260	Carbon tetrachloride	UG/L	200	U	5	U	5	U	5	U
SW8260	Chloroform	UG/L	80	U	2	U	2	U	2	U
SW8260	Chloromethane	UG/L	80	U	2	U	2	U	2	U
SW8260	cis-1,2-Dichloroethene	UG/L	850		1	U	1	U	1	U
SW8260	Methylene chloride	UG/L	200	U	5	U	5	U	5	U
SW8260	Tetrachloroethene	UG/L	3,000		1	U	1	U	1	U
SW8260	Toluene	UG/L	40	U	1	U	1	U	1	U
SW8260	trans-1,2-Dichloroethene	UG/L	40	U	1	U	1	U	1	U
SW8260	Trichloroethene	UG/L	220		1	U	1	U	1	U
SW8260	Vinyl chloride	UG/L	80	U	2	U	2	U	2	U

TABLE 3 - SUMMARY OF QUALIFICATION ACTIONS
CATEGORY A REVIEW REPORT
OCTOBER - NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Lab SDG	Method	Lab Sample ID	Field Sample ID	Fraction	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units
23J2524	SW8260	23J2524-01	MW-113	N	Acetone	56	J	1,000	U	BL2	UG/L
23J2524	SW8260	23J2524-03	EW-7	N	Acetone	11	J	200	U	BL2	UG/L
23J2524	SW8260	23J2524-09	OW-16	N	Acetone	17	J	250	U	BL2	UG/L

**CATEGORY A REVIEW REPORT
OCTOBER – NOVEMBER 2023 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK**

ATTACHMENT A

VOCs

PROJECT CATEGORY A REVIEW RECORD

Project: American Thermostat

Method : SW-846 8260C (or specify)

Laboratory: Pace

SDG(s): 23J2524, 23J2533, 23K1915

Date: 1/8/2024

Reviewer: Amber Jones

Review Level ☒ CATEGORY A

1. ☐ **Case Narrative Review and COC/Data Package Completeness** COMMENTS
Were problems noted? yes, see attached
Were all the samples on the COC analyzed for the requested analyses? YES NO (circle one)
Are Field Sample IDs and Locations assigned correctly? YES NO (circle one)
2. ☐ **Holding time and Sample Collection**
Were all samples properly preserved and analyzed within the 14 day holding time? (7 day holding time for unpreserved samples) YES NO (circle one) (See Table 1, USEPA Region 2 SOP HW-24, Rev 4, Sep 2014)
3. ☐ **QC Blanks**
Are method blanks free of contamination? YES NO (circle one)
Are Trip blanks free of contamination? YES NO (circle one)
Are Rinse blanks free of contamination? YES NO NA (circle one) see attached - acetone - subset U @ RL, BL2
4. ☐ **Matrix Spike** – Use nominal limits for recovery (water and soil 70-130%) and relative percent difference (RPD) (water RPD ≤ 20 , soil RPD ≤ 35) based on Region 2 SOP guidance.
Were MS/MSDs submitted/analyzed? YES NO
Were all results within above QC limits? YES NO NA (circle one)
Were any recoveries <20%? YES NO NA (circle one) [National Functional Guidelines 2020 [Expanded Lower Acceptance Limit]]
5. ☐ **Laboratory Control Sample Results** – Use nominal limits for recovery (water and soil 70-130%) and RPD (water RPD ≤ 20 , soil RPD ≤ 35) based on Region 2 SOP guidance.
Were all results within above QC limits? YES NO (circle one) see attached - subset J+, LCSH
6. ☐ **Surrogate Recovery** – Use nominal limits for recovery (water 80-120%, soil 70-130%) based on Region 2 SOP guidance.
Were all results within above QC limits? YES NO (circle one)
Were any results <10%? YES NO NA (circle one) [National Functional Guidelines 2020 [Expanded Lower Acceptance Limit]]
7. ☐ **Field Duplicates** - Region 2 limits (water RPD 50, soil RPD 100)
Were Field Duplicates submitted/analyzed? YES NO
Were all results within Region 2 Limits? YES NO NA (circle one)
8. ☐ **Reporting Limits:** Were samples analyzed at a dilution? YES NO (circle one)
elevated RLs for ND
9. ☐ **Electronic Data Review and Edits**
Does the EDD match the Form Is? YES NO (circle one)

10. ☐ **Table Review**

Table 1 (Samples and Analytical Methods)

Table 2 (Analytical Results)

Table 3 (Qualification Actions)

Were all tables produced and reviewed? **YES** NO (circle one)

Table 4 (TICs) Did lab report TICs? YES **NO** (circle one)

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SW-846 8260D

Qualifications:**L-04**

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

see attached for LCS review

Analyte & Samples(s) Qualified:**Tetrahydrofuran**

S095283-CCV1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

see attached for LCS review

Analyte & Samples(s) Qualified:**1,2-Dichloroethane**

B355762-BSD1

RL-11

Elevated reporting limit due to high concentration of target compounds.

okay

Analyte & Samples(s) Qualified:

23J2524-01[MW-113], 23J2524-03[EW-7], 23J2524-04[EW-16], 23J2524-05[OW-2], 23J2524-06[OW-3], 23J2524-07[OW-5], 23J2524-08[OW-14], 23J2524-09[OW-16]

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

outside scope of Cat A review

Analyte & Samples(s) Qualified:**1,4-Dioxane**

S095283-CCV1

2-Butanone (MEK)

S095283-CCV1

Acrylonitrile

S095283-CCV1

Methyl Acetate

S095283-CCV1

tert-Butyl Alcohol (TBA)

S095283-CCV1

Tetrahydrofuran

S095283-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

outside scope of Cat A review

Analyte & Samples(s) Qualified:**1,1,1,2-Tetrachloroethane**

S095283-CCV1

1,2-Dichloroethane

S095283-CCV1

Bromodichloromethane

S095283-CCV1

Bromomethane

S095283-CCV1

Dibromomethane

S095283-CCV1

Trichlorofluoromethane (Freon 11)

S095283-CCV1

1 - FORM I

ANALYSIS DATA SHEET

39

Field Blank

Laboratory:	Pace New England	Work Order:	23J2524
Client:	NYDEC_Wood - Portland, ME	Project:	American Thermostat - CO 142745
Matrix:	Field Blank	Laboratory ID:	23J2524-02
		File ID:	B23V29309.D
Sampled:	10/17/23 15:45	Prepared:	10/20/23 06:41
		Analyzed:	10/20/23 09:44
Solids:		Preparation:	SW-846 5030B
		Dilution:	1
Initial/Final:	5 mL / 5 mL		
Batch:	B355762	Sequence:	S095283
		Calibration:	2301046
		Instrument:	GCMSVOA2

CAS NO.	COMPOUND	CONC. (µg/L)	MDL	RL	Q
67-64-1	Acetone	3.2	2.0	50	J
75-15-0	Carbon Disulfide		1.6	5.0	
56-23-5	Carbon Tetrachloride	subset U @ RL, BL2	0.16	5.0	
67-66-3	Chloroform		0.14	2.0	
74-87-3	Chloromethane		0.50	2.0	
107-06-2	1,2-Dichloroethane		0.30	1.0	
75-35-4	1,1-Dichloroethylene		0.14	1.0	
156-59-2	cis-1,2-Dichloroethylene		0.14	1.0	
156-60-5	trans-1,2-Dichloroethylene		0.17	1.0	
591-78-6	2-Hexanone (MBK)		1.2	10	
75-09-2	Methylene Chloride		0.18	5.0	
79-34-5	1,1,2,2-Tetrachloroethane		0.14	0.50	
127-18-4	Tetrachloroethylene		0.17	1.0	
108-88-3	Toluene		0.22	1.0	
71-55-6	1,1,1-Trichloroethane		0.15	1.0	
79-00-5	1,1,2-Trichloroethane		0.19	1.0	
79-01-6	Trichloroethylene		0.17	1.0	
75-01-4	Vinyl Chloride		0.24	2.0	

LCS / LCS DUPLICATE RECOVERY

SW-846 8260D

Laboratory:	Pace New England	Work Order:	23J2524
Client:	NYDEC_Wood - Portland, ME	Project:	American Thermostat - CO 142745
Matrix:	Water	Preparation:	SW-846 5030B
Batch:	B355762	Laboratory ID:	B355762-BS1
Column:		Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (µg/L)	LCS CONCENTRATION (µg/L)	LCS % REC.	QC LIMITS REC.
Acetone	100	90.5	90.5	70 - 160
Carbon Disulfide	100	117	117	70 - 130
Carbon Tetrachloride	10.0	10.6	106	70 - 130
Chloroform	10.0	11.5	115	70 - 130
Chloromethane	10.0	9.09	90.9	40 - 160
1,2-Dichloroethane	10.0	12.6	126	70 - 130
1,1-Dichloroethylene	10.0	11.6	116	70 - 130
cis-1,2-Dichloroethylene	10.0	10.6	106	70 - 130
trans-1,2-Dichloroethylene	10.0	10.3	103	70 - 130
2-Hexanone (MBK)	100	88.0	88.0	70 - 160
Methylene Chloride	10.0	10.0	100	70 - 130
1,1,2,2-Tetrachloroethane	10.0	10.9	109	70 - 130
Tetrachloroethylene	10.0	11.2	112	70 - 130
Toluene	10.0	10.8	108	70 - 130
1,1,1-Trichloroethane	10.0	11.5	115	70 - 130
1,1,2-Trichloroethane	10.0	11.7	117	70 - 130
Trichloroethylene	10.0	11.6	116	70 - 130
Vinyl Chloride	10.0	10.7	107	40 - 160

ANALYTE	SPIKE ADDED (µg/L)	LCSD CONCENTRATION (µg/L)	LCSD % REC. #	% RPD #	QC LIMITS RPD	REC.
Acetone	100	85.2	85.2	5.96	25	70 - 160
Carbon Disulfide	100	115	115	1.59	25	70 - 130
Carbon Tetrachloride	10.0	11.2	112	6.16	25	70 - 130
Chloroform	10.0	11.1	111	3.81	25	70 - 130
Chloromethane	10.0	9.05	90.5	0.441	25	40 - 160
1,2-Dichloroethane	10.0	13.5	135	6.97	25	70 - 130
1,1-Dichloroethylene	10.0	11.5	115	0.347	25	70 - 130
cis-1,2-Dichloroethylene	10.0	10.6	106	0.377	25	70 - 130
trans-1,2-Dichloroethylene	10.0	10.3	103	0.485	25	70 - 130
2-Hexanone (MBK)	100	83.9	83.9	4.80	25	70 - 160
Methylene Chloride	10.0	9.74	97.4	2.63	25	70 - 130
1,1,2,2-Tetrachloroethane	10.0	10.5	105	3.09	25	70 - 130
Tetrachloroethylene	10.0	11.0	110	1.98	25	70 - 130
Toluene	10.0	10.8	108	0.371	25	70 - 130
1,1,1-Trichloroethane	10.0	11.4	114	0.873	25	70 - 130

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISION 12/28/23: Report revised to have Sample ID for Sample -01 changed per client request.

SW-846 8260D

Qualifications:

RL-11

Elevated reporting limit due to high concentration of target compounds. okay

Analyte & Samples(s) Qualified:

23J2533-04[EW-5]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Kyle K. Stuckey
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8260D**Qualifications:**

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound. outside scope of Cat A review

Analyte & Samples(s) Qualified:**Diisopropyl Ether (DIPE)**

S096519-CCV1

Methylene Chloride

23K1915-01[Trip Blank], 23K1915-02[CE-2 BEF], B358291-BLK1, B358291-BS1, B358291-BSD1, S096519-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

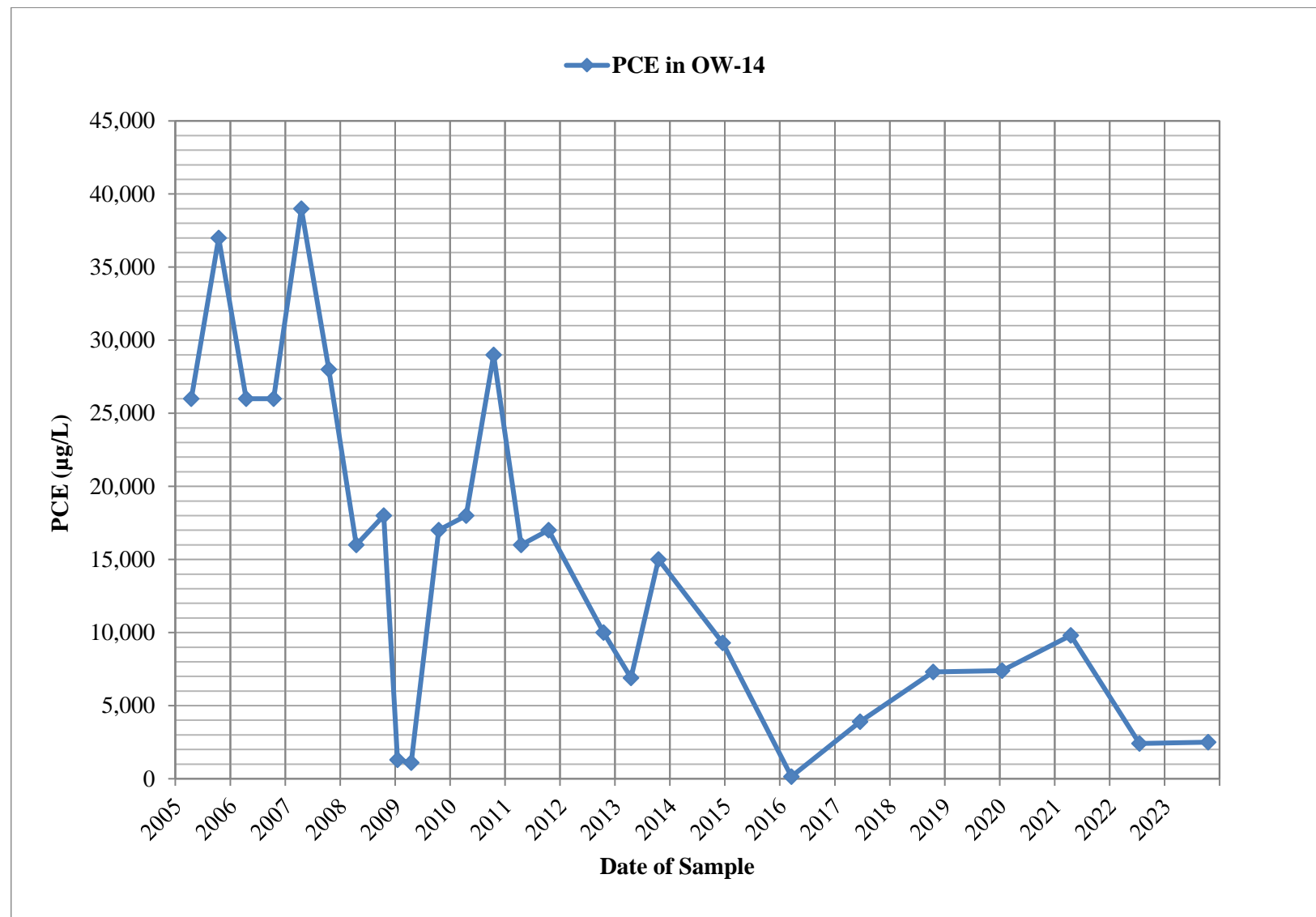
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

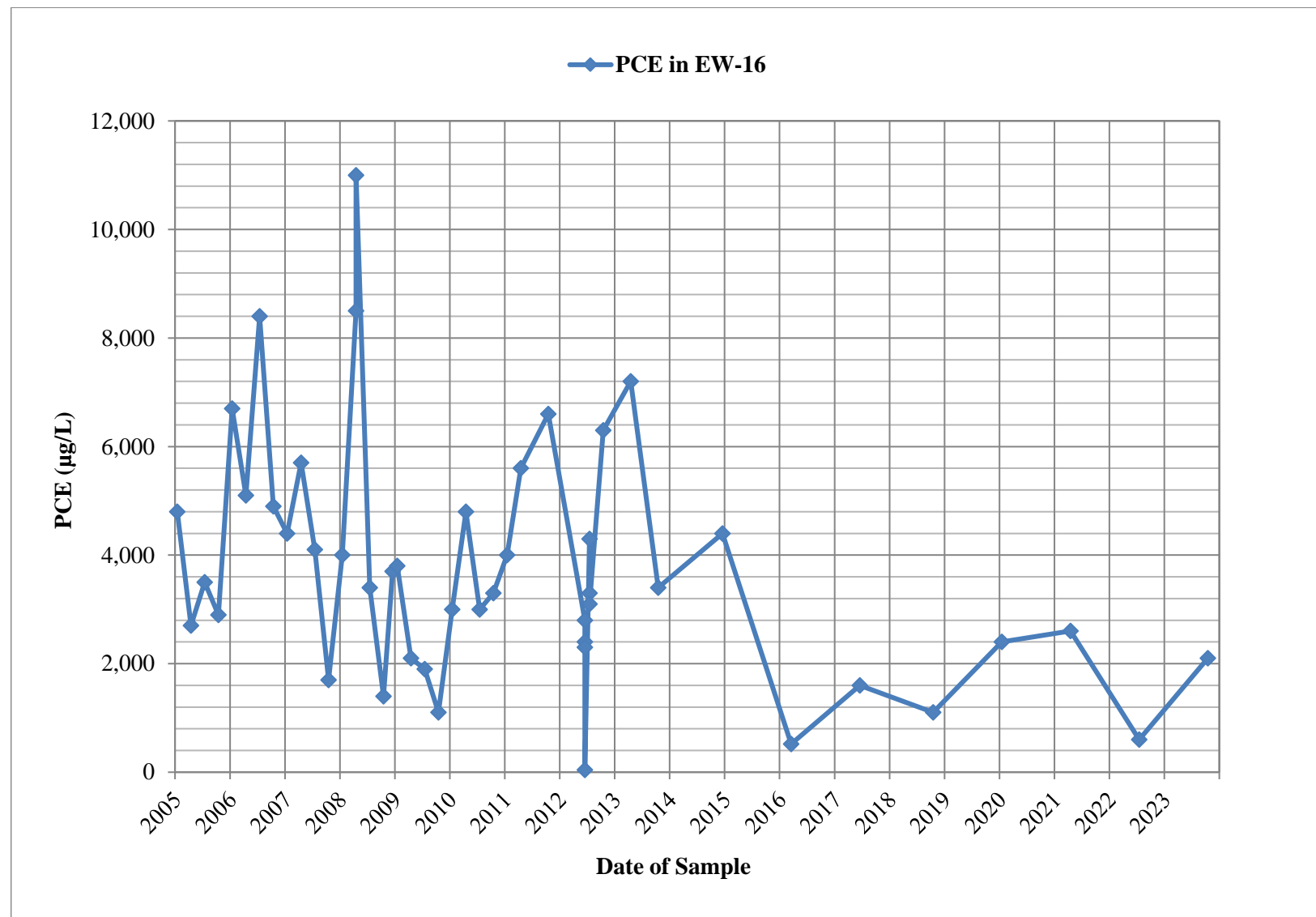


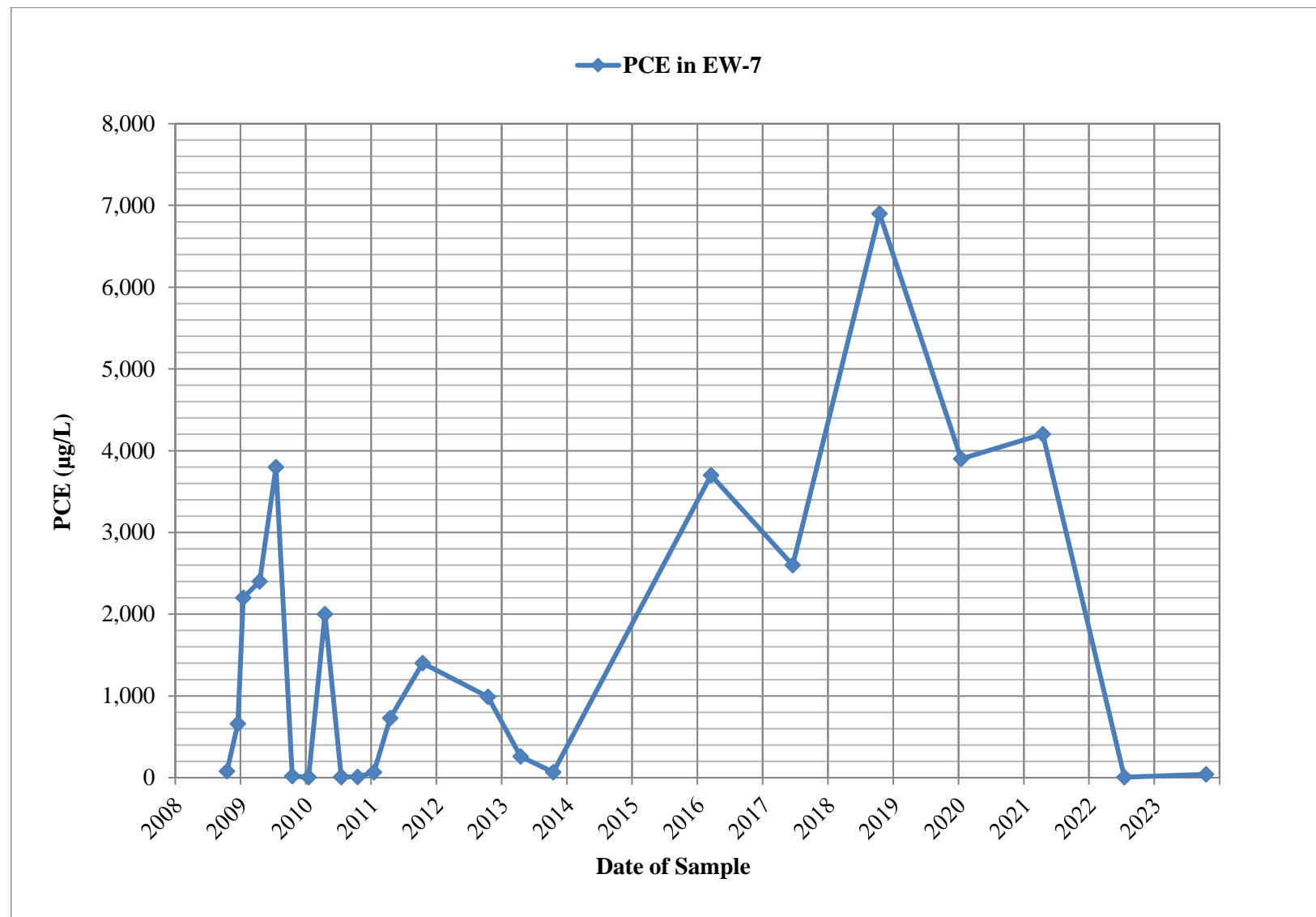
Lisa A. Worthington
Technical Representative

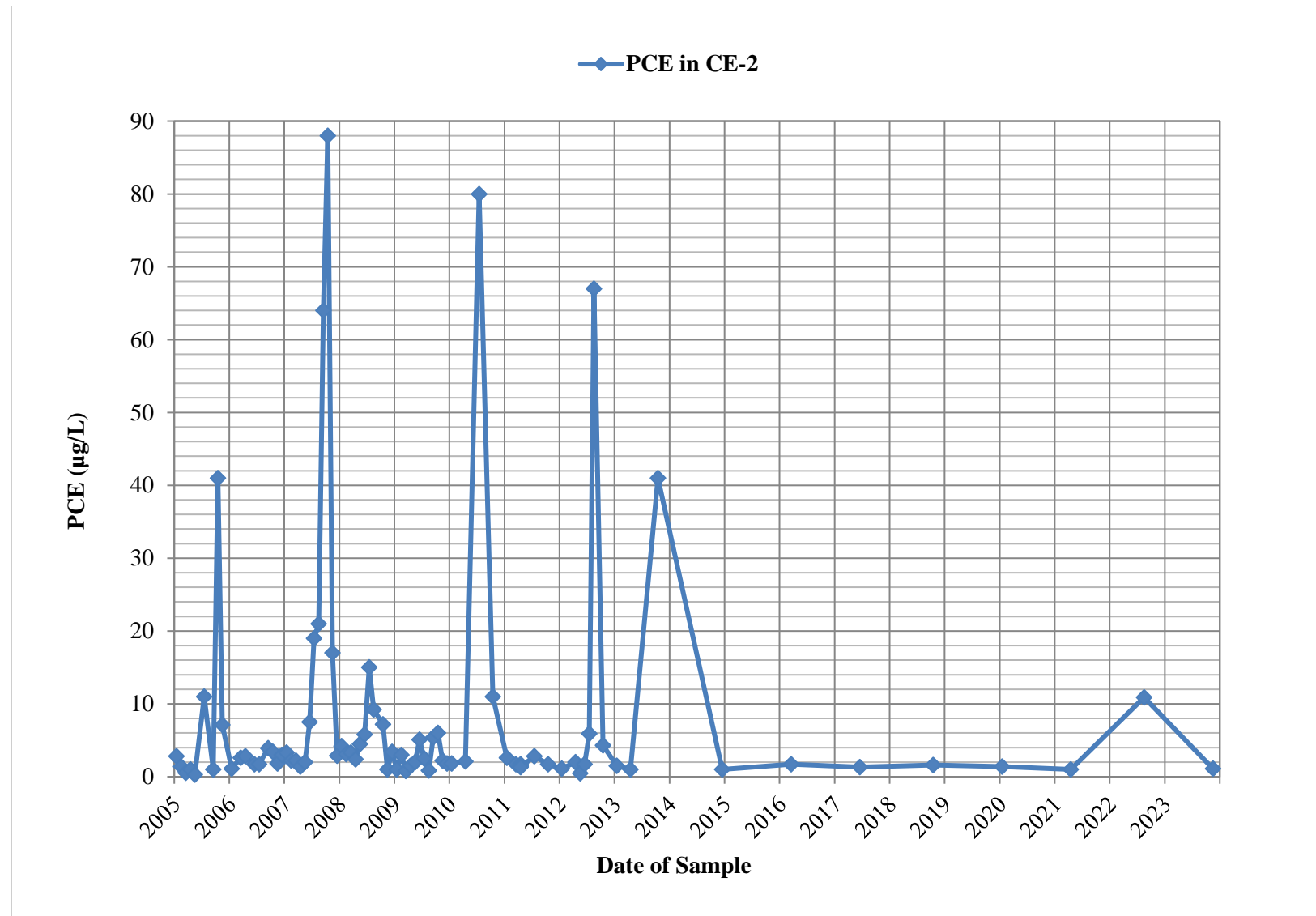
APPENDIX E

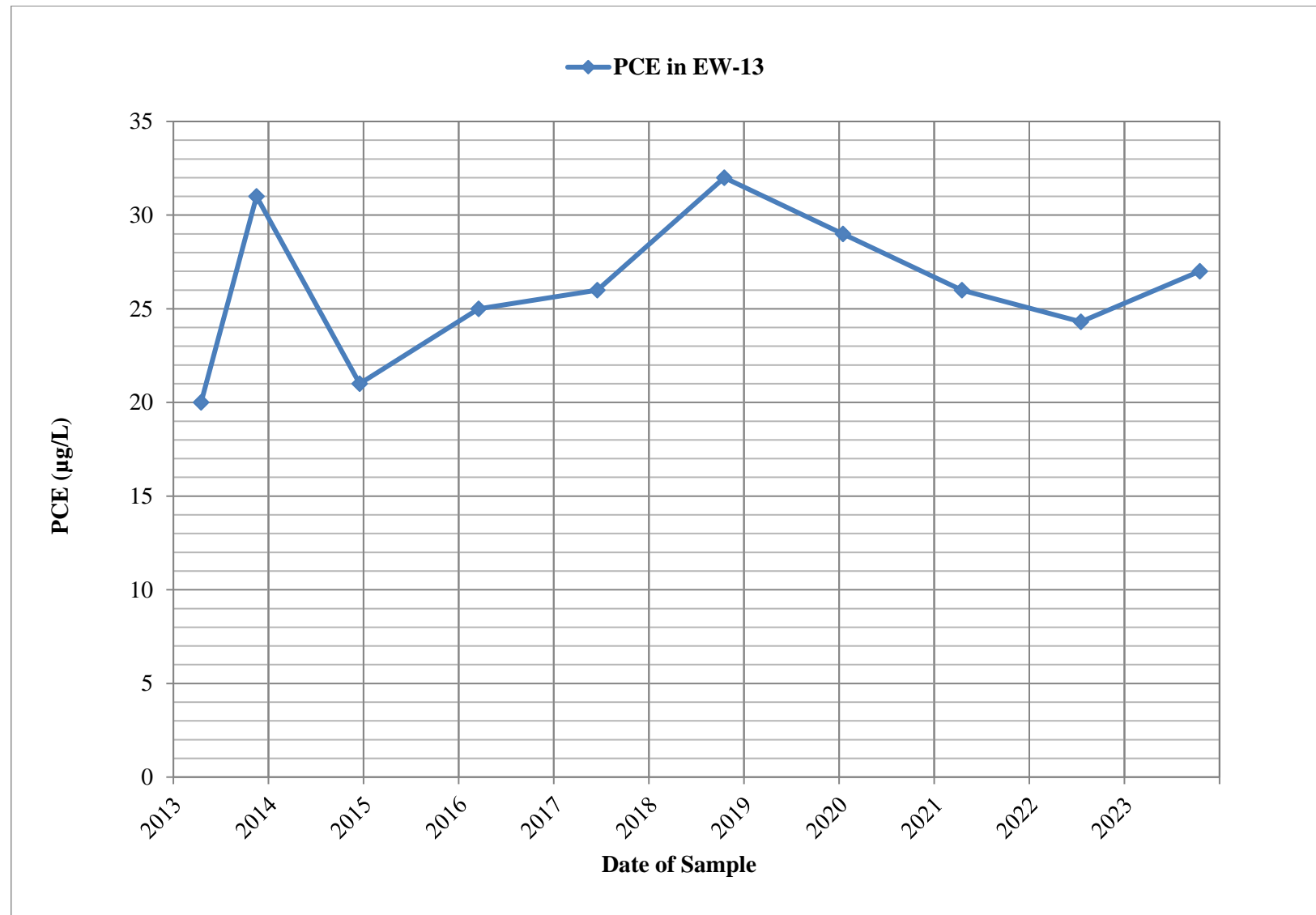
TIME SERIES PLOTS – OW-14, EW-16, EW-7, CE-2, EW-13, M-5

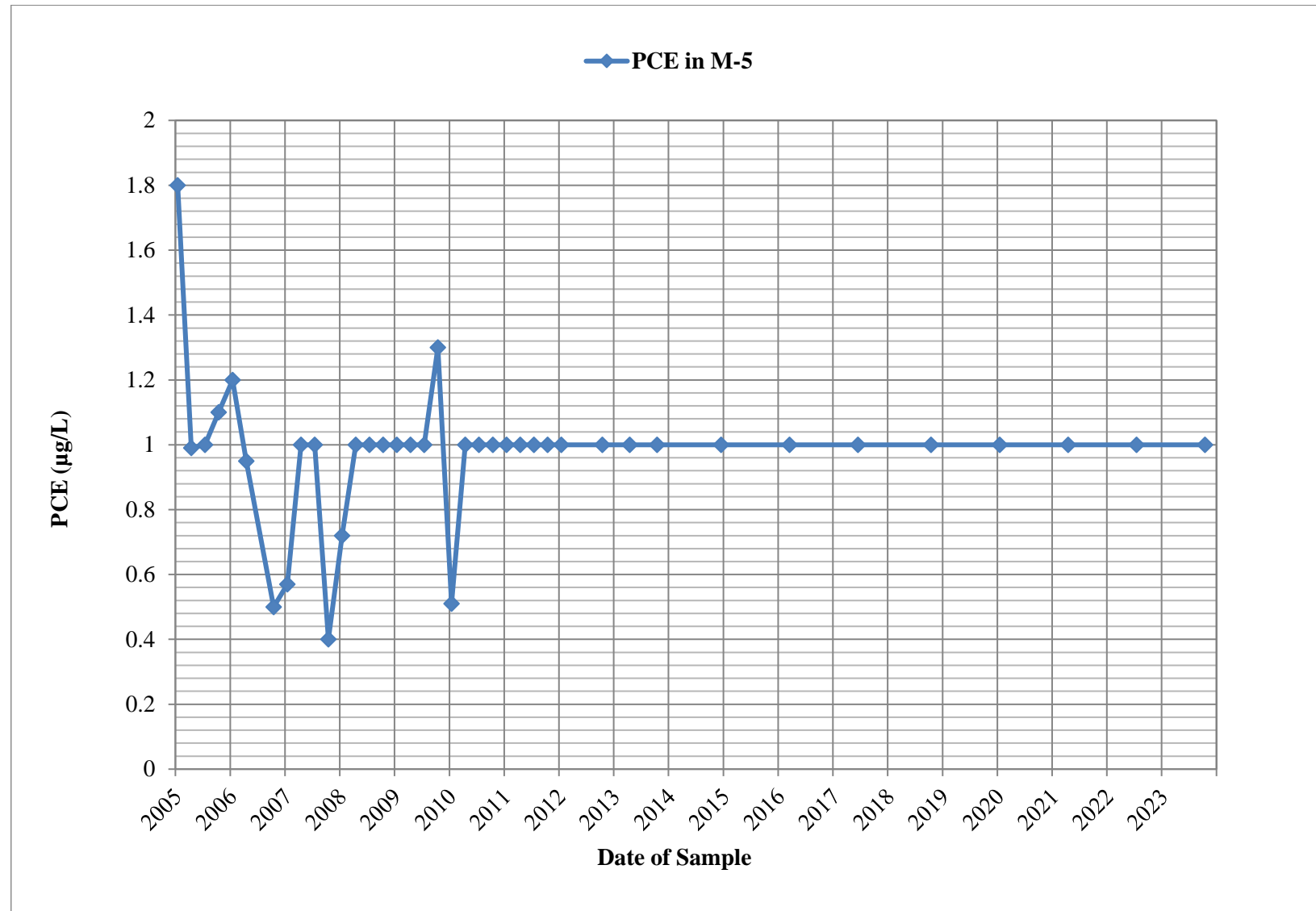












APPENDIX F

CONSTITUENT TREND ANALYSES OF KEY WELLS

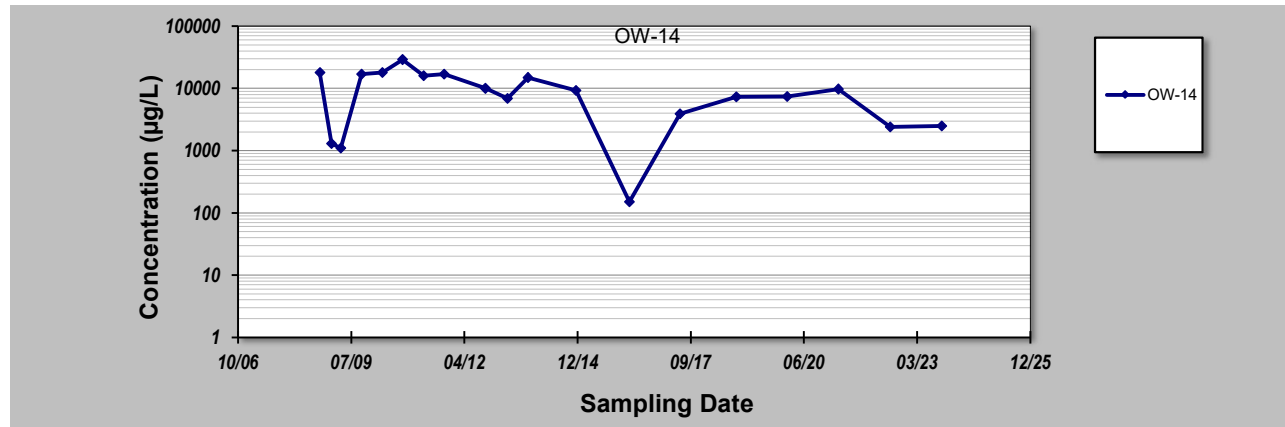
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: 22-Jan-24	Job ID: 3616206098
Facility Name: American Thermostat NYSDEC Site 420006	Constituent: PCE
Conducted By: Haley Plante/Flynn Dorn	Concentration Units: µg/L
Sampling Point ID: OW-14	

Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	10/2/2008	18000						
2	1/12/2009	1300						
3	4/6/2009	1100						
4	10/6/2009	17000						
5	4/7/2010	18000						
6	10/4/2010	29000						
7	4/6/2011	16000						
8	10/5/2011	17000						
9	10/2/2012	10000						
10	4/16/2013	6900						
11	10/15/2013	15000						
12	12/15/2014	9300						
13	3/30/2016	150						
14	6/20/2017	3900						
15	10/31/2018	7300						
16	1/22/2020	7400						
17	4/19/2021	9800						
18	7/20/2022	2420						
19	10/18/2023	2500						
20								

Coefficient of Variation:	0.76							
Mann-Kendall Statistic (S):	-59							
Confidence Factor:	97.9%							
Concentration Trend:	Decreasing							



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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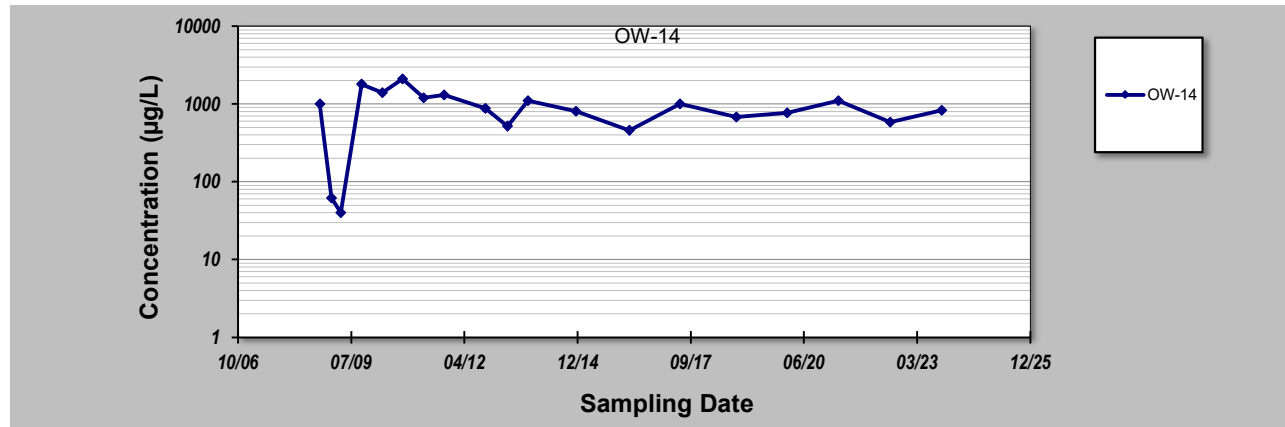
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **TCE**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **OW-14**

Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)						
1	10/2/2008	1000						
2	1/12/2009	62						
3	4/6/2009	40						
4	10/6/2009	1800						
5	4/7/2010	1400						
6	10/4/2010	2100						
7	4/6/2011	1200						
8	10/5/2011	1300						
9	10/2/2012	880						
10	4/16/2013	520						
11	10/15/2013	1100						
12	12/15/2014	810						
13	3/30/2016	460						
14	6/20/2017	1000						
15	10/31/2018	680						
16	1/22/2020	770						
17	4/19/2021	1100						
18	7/20/2022	584						
19	10/18/2023	830						
20								

Coefficient of Variation:	0.56							
Mann-Kendall Statistic (S):	-31							
Confidence Factor:	85.1%							
Concentration Trend:	Stable							



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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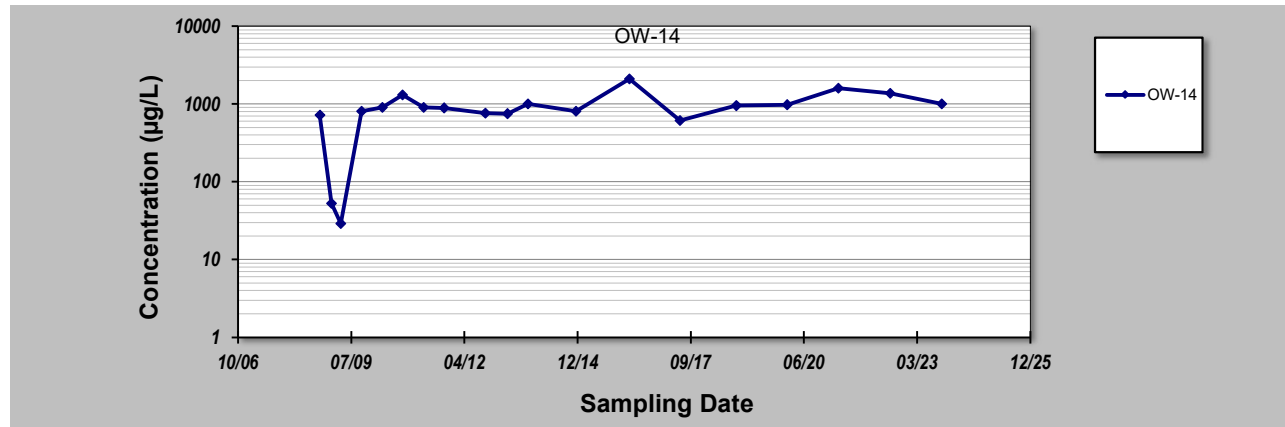
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **cis-1,2-DCE**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **OW-14**

Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)						
1	10/2/2008	720						
2	1/12/2009	53						
3	4/6/2009	29						
4	10/6/2009	810						
5	4/7/2010	900						
6	10/4/2010	1300						
7	4/6/2011	900						
8	10/5/2011	890						
9	10/2/2012	760						
10	4/16/2013	750						
11	10/15/2013	1000						
12	12/15/2014	810						
13	3/30/2016	2100						
14	6/20/2017	610						
15	10/31/2018	950						
16	1/22/2020	980						
17	4/19/2021	1600						
18	7/20/2022	1370						
19	10/18/2023	1000						
20								

Coefficient of Variation: **0.51**
 Mann-Kendall Statistic (S): **72**
 Confidence Factor: **99.5%**
 Concentration Trend: **Increasing**



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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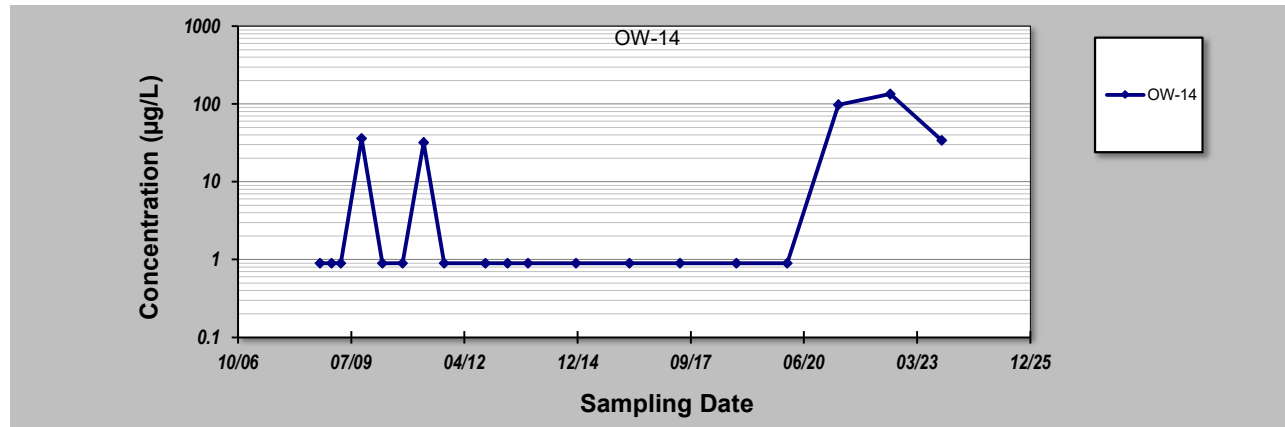
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **Vinyl Chloride**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **OW-14**

Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATION (µg/L)						
1	10/2/2008	0.9						
2	1/12/2009	0.9						
3	4/6/2009	0.9						
4	10/6/2009	36						
5	4/7/2010	0.9						
6	10/4/2010	0.9						
7	4/6/2011	32						
8	10/5/2011	0.9						
9	10/2/2012	0.9						
10	4/16/2013	0.9						
11	10/15/2013	0.9						
12	12/15/2014	0.9						
13	3/30/2016	0.9						
14	6/20/2017	0.9						
15	10/31/2018	0.9						
16	1/22/2020	0.9						
17	4/19/2021	98						
18	7/20/2022	134						
19	10/18/2023	34						
20								

Coefficient of Variation:	2.03							
Mann-Kendall Statistic (S):	32							
Confidence Factor:	85.9%							
Concentration Trend:	No Trend							



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Results have two historic detections, most recently in 2011.

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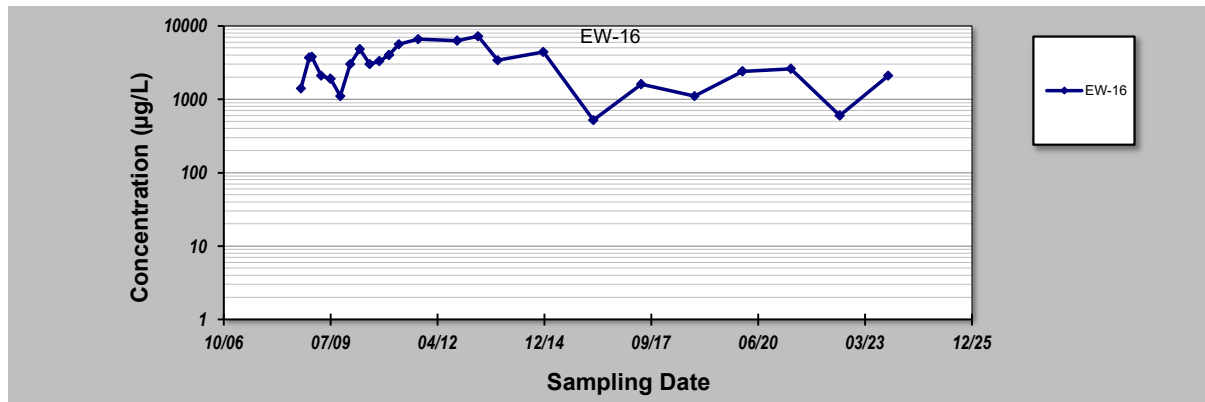
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **PCE**
 Concentration Units: **µg/L**

Sampling Point ID: **EW-16**

Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)					
1	10/2/2008	1400					
2	12/17/2008	3700					
3	1/12/2009	3800					
4	4/8/2009	2100					
5	7/6/2009	1900					
6	10/5/2009	1100					
7	1/6/2010	3000					
8	4/7/2010	4800					
9	7/7/2010	3000					
10	10/4/2010	3300					
11	1/3/2011	4000					
12	4/6/2011	5600					
13	10/4/2011	6600					
14	10/2/2012	6300					
15	4/16/2013	7200					
16	10/15/2013	3400					
17	12/18/2014	4400					
18	3/30/2016	520					
19	6/20/2017	1600					
20	10/31/2018	1100					
21	1/22/2020	2400					
22	4/20/2021	2600					
23	7/20/2022	599					
24	10/18/2023	2100					
25							
26							
27							
28							
29							
30							
Coefficient of Variation:		0.64					
Mann-Kendall Statistic (S):		-39					
Confidence Factor:		81.1%					
Concentration Trend:		Stable					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Non-Detects are reported as the detection limit from the January 2020 laboratory analysis.

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GSI MANN-KENDALL TOOLKIT

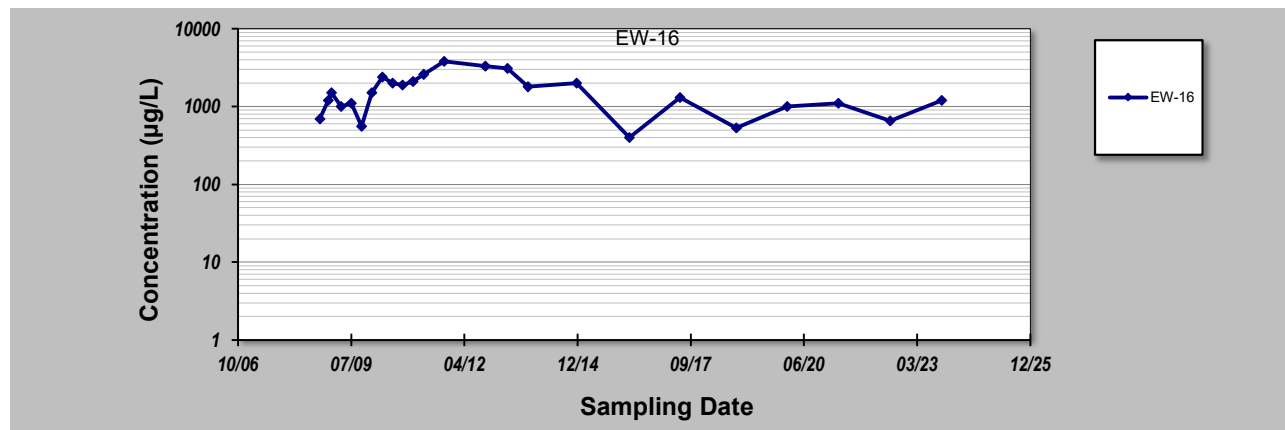
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **TCE**
 Concentration Units: **µg/L**

Sampling Point ID: **EW-16**

Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)					
1	10/2/2008	690					
2	12/17/2008	1200					
3	1/12/2009	1500					
4	4/8/2009	1000					
5	7/6/2009	1100					
6	10/5/2009	560					
7	1/6/2010	1500					
8	4/7/2010	2400					
9	7/7/2010	2000					
10	10/4/2010	1900					
11	1/3/2011	2100					
12	4/6/2011	2600					
13	10/4/2011	3800					
14	10/2/2012	3300					
15	4/16/2013	3100					
16	10/15/2013	1800					
17	12/18/2014	2000					
18	3/30/2016	400					
19	6/20/2017	1300					
20	10/31/2018	530					
21	1/22/2020	1000					
22	4/20/2021	1100					
23	7/20/2022	657					
24	10/18/2023	1200					
25							
Coefficient of Variation:		0.57					
Mann-Kendall Statistic (S):		-5					
Confidence Factor:		53.9%					
Concentration Trend:		Stable					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
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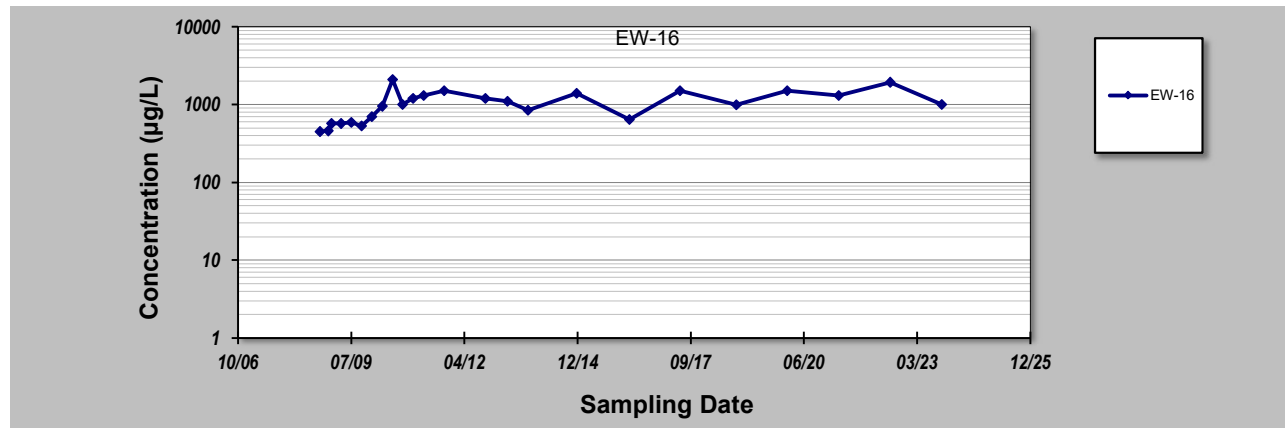
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **cis-1,2-DCE**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **EW-16**

Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)						
1	10/2/2008	450						
2	12/17/2008	460						
3	1/12/2009	570						
4	4/8/2009	570						
5	7/6/2009	590						
6	10/5/2009	530						
7	1/6/2010	700						
8	4/7/2010	950						
9	7/7/2010	2100						
10	10/4/2010	1000						
11	1/3/2011	1200						
12	4/6/2011	1300						
13	10/4/2011	1500						
14	10/2/2012	1200						
15	4/16/2013	1100						
16	10/15/2013	840						
17	12/18/2014	1400						
18	3/30/2016	640						
19	6/20/2017	1500						
20	10/31/2018	990						
21	1/22/2020	1500						
22	4/20/2021	1300						
23	7/20/2022	1940						
24	10/18/2023	1000						
25								

Coefficient of Variation: **0.43**
 Mann-Kendall Statistic (S): **141**
 Confidence Factor: **>99.9%**
 Concentration Trend: **Increasing**



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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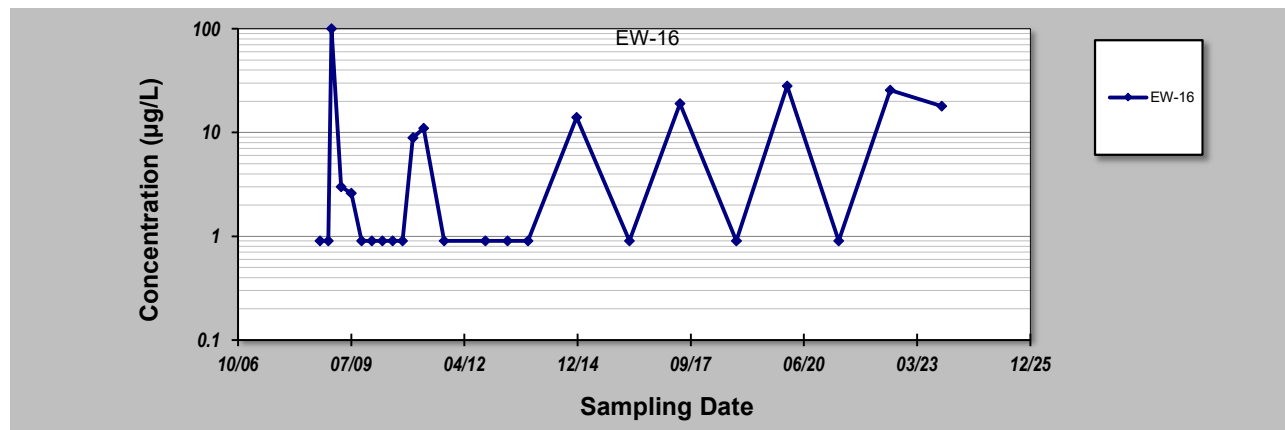
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **Vinyl Chloride**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **EW-16**

Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATION (µg/L)					
1	10/2/2008	0.9					
2	12/17/2008	0.9					
3	1/12/2009	100					
4	4/8/2009	3					
5	7/6/2009	2.6					
6	10/5/2009	0.9					
7	1/6/2010	0.9					
8	4/7/2010	0.9					
9	7/7/2010	0.9					
10	10/4/2010	0.9					
11	1/3/2011	8.9					
12	4/6/2011	11					
13	10/4/2011	0.9					
14	10/2/2012	0.9					
15	4/16/2013	0.9					
16	10/15/2013	0.9					
17	12/18/2014	14					
18	3/30/2016	0.9					
19	6/20/2017	19					
20	10/31/2018	0.9					
21	1/22/2020	28					
22	4/20/2021	0.9					
23	7/20/2022	25.6					
24	10/18/2023	18					
25							
Coefficient of Variation:		2.07					
Mann-Kendall Statistic (S):		45					
Confidence Factor:		86.1%					
Concentration Trend:		No Trend					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Non-Detects are reported as the detection limit from the January 2020 laboratory analysis.

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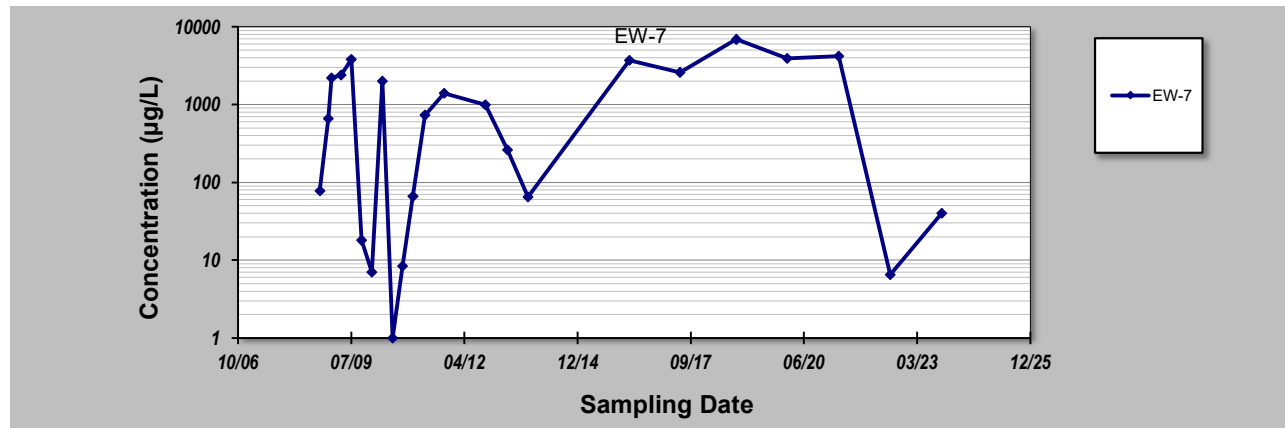
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **PCE**
 Concentration Units: **µg/L**

Sampling Point ID: **EW-7**

Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	10/2/2008	78						
2	12/17/2008	660						
3	1/12/2009	2200						
4	4/8/2009	2400						
5	7/6/2009	3800						
6	10/5/2009	18						
7	1/6/2010	7						
8	4/7/2010	2000						
9	7/7/2010	1						
10	10/4/2010	8.4						
11	1/3/2011	66						
12	4/18/2011	730						
13	10/4/2011	1400						
14	10/2/2012	990						
15	4/16/2013	260						
16	10/15/2013	65						
17	3/30/2016	3700						
18	6/20/2017	2600						
19	10/31/2018	6900						
20	1/22/2020	3900						
21	4/20/2021	4200						
22	7/20/2022	6.5						
23	10/18/2023	40						
24								
25								
Coefficient of Variation:		1.20						
Mann-Kendall Statistic (S):		35						
Confidence Factor:		81.3%						
Concentration Trend:		No Trend						



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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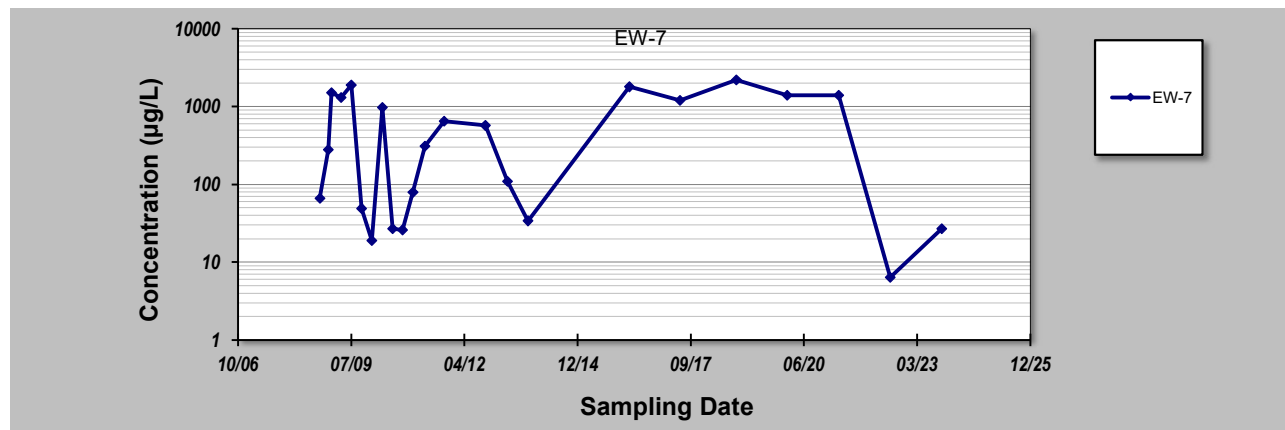
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **TCE**
 Concentration Units: **µg/L**

Sampling Point ID: **EW-7**

Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)					
1	10/2/2008	66					
2	12/17/2008	280					
3	1/12/2009	1500					
4	4/8/2009	1300					
5	7/6/2009	1900					
6	10/5/2009	49					
7	1/6/2010	19					
8	4/7/2010	970					
9	7/7/2010	27					
10	10/4/2010	26					
11	1/3/2011	79					
12	4/18/2011	310					
13	10/4/2011	650					
14	10/2/2012	570					
15	4/16/2013	110					
16	10/15/2013	34					
17	3/30/2016	1800					
18	6/20/2017	1200					
19	10/31/2018	2200					
20	1/22/2020	1400					
21	4/20/2021	1400					
22	7/20/2022	6.4					
23	10/18/2023	27					
24							
25							
Coefficient of Variation:		1.06					
Mann-Kendall Statistic (S):		11					
Confidence Factor:		60.3%					
Concentration Trend:		No Trend					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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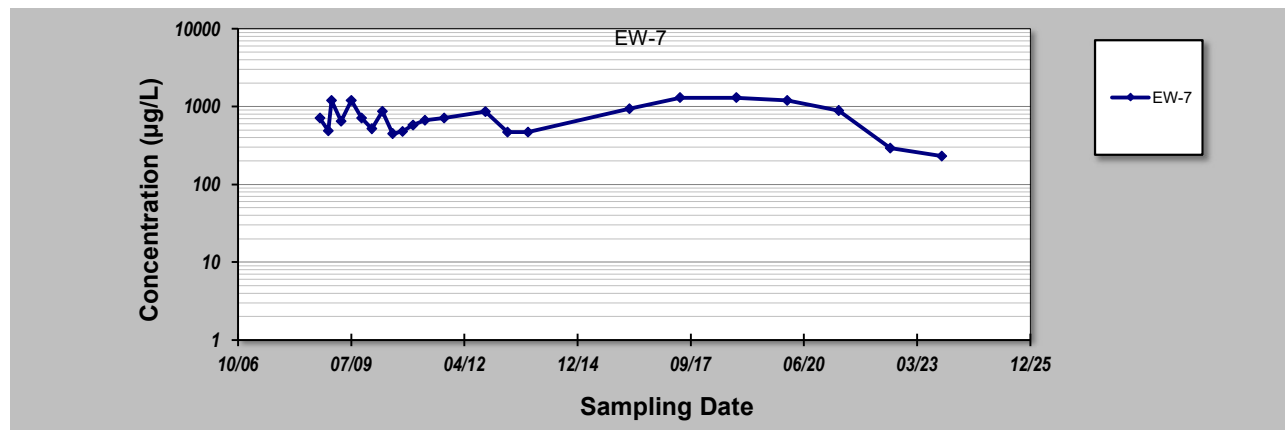
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **cis-1,2-DCE**
 Concentration Units: **µg/L**

Sampling Point ID: **EW-7**

Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)					
1	10/2/2008	710					
2	12/17/2008	490					
3	1/12/2009	1200					
4	4/8/2009	650					
5	7/6/2009	1200					
6	10/5/2009	710					
7	1/6/2010	520					
8	4/7/2010	870					
9	7/7/2010	450					
10	10/4/2010	480					
11	1/3/2011	580					
12	4/18/2011	670					
13	10/4/2011	710					
14	10/2/2012	860					
15	4/16/2013	470					
16	10/15/2013	470					
17	3/30/2016	940					
18	6/20/2017	1300					
19	10/31/2018	1300					
20	1/22/2020	1200					
21	4/20/2021	890					
22	7/20/2022	292					
23	10/18/2023	230					
24							
25							
Coefficient of Variation:		0.43					
Mann-Kendall Statistic (S):		-3					
Confidence Factor:		52.1%					
Concentration Trend:		Stable					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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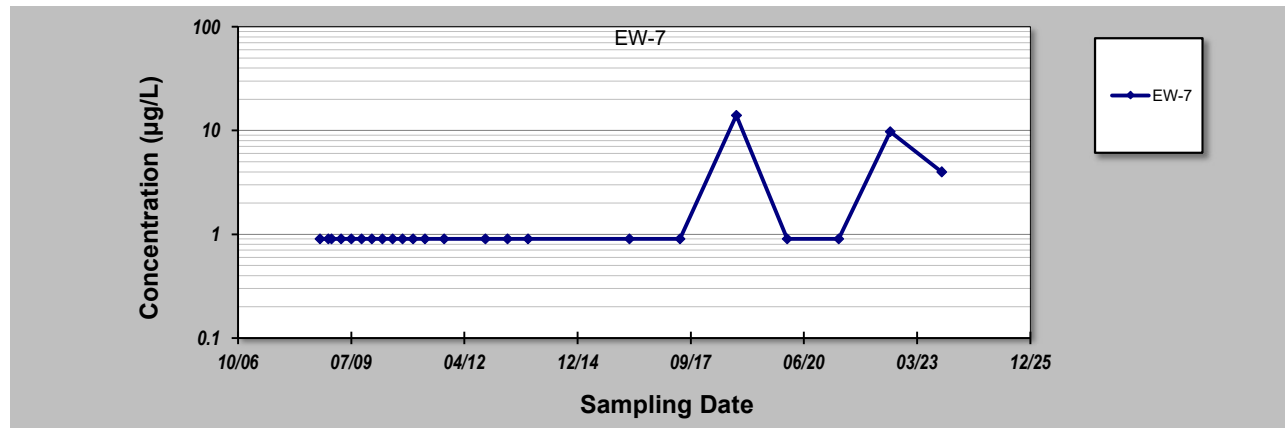
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **Vinyl Chloride**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **EW-7**

Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATION (µg/L)					
1	10/2/2008	0.9					
2	12/17/2008	0.9					
3	1/12/2009	0.9					
4	4/8/2009	0.9					
5	7/6/2009	0.9					
6	10/5/2009	0.9					
7	1/6/2010	0.9					
8	4/7/2010	0.9					
9	7/7/2010	0.9					
10	10/4/2010	0.9					
11	1/3/2011	0.9					
12	4/18/2011	0.9					
13	10/4/2011	0.9					
14	10/2/2012	0.9					
15	4/16/2013	0.9					
16	10/15/2013	0.9					
17	3/30/2016	0.9					
18	6/20/2017	0.9					
19	10/31/2018	14					
20	1/22/2020	0.9					
21	4/20/2021	0.9					
22	7/20/2022	9.7					
23	10/18/2023	4					
24							
25							

Coefficient of Variation: **1.63**
 Mann-Kendall Statistic (S): **53**
 Confidence Factor: **91.4%**
 Concentration Trend: **Prob. Increasing**



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Results have two historic detections, most recently in 2011.

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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

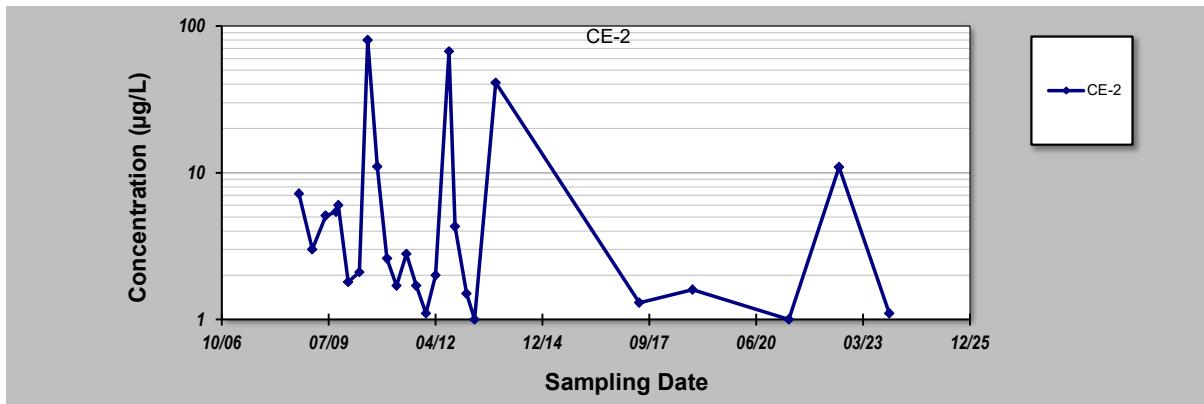
Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **PCE**
 Concentration Units: **µg/L**

Sampling Point ID: **CE-2**

Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	10/1/2008	7.2						
2	2/2/2009	3						
3	6/9/2009	5.1						
4	9/14/2009	5.4						
5	10/5/2009	6						
6	1/5/2010	1.8						
7	4/21/2010	2.1						
8	7/6/2010	80						
9	10/5/2010	11						
10	1/3/2011	2.6						
11	4/4/2011	1.7						
12	7/5/2011	2.8						
13	10/4/2011	1.7						
14	1/3/2012	1.1						
15	4/2/2012	2						
16	8/6/2012	67						
17	10/1/2012	4.3						
18	1/15/2013	1.5						
19	4/1/2013	1						
20	10/15/2013	41						
21	6/21/2017	1.3						
22	10/31/2018	1.6						
23	4/19/2021	1						
24	8/1/2022	10.9						
25	11/14/2023	1.1						
26								
27								
28								
29								
30								

Coefficient of Variation: **1.95**
 Mann-Kendall Statistic (S): **-99**
 Confidence Factor: **99.0%**
 Concentration Trend: **Decreasing**



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Non-Detects are reported as the detection limit from the January 2020 laboratory analysis.

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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

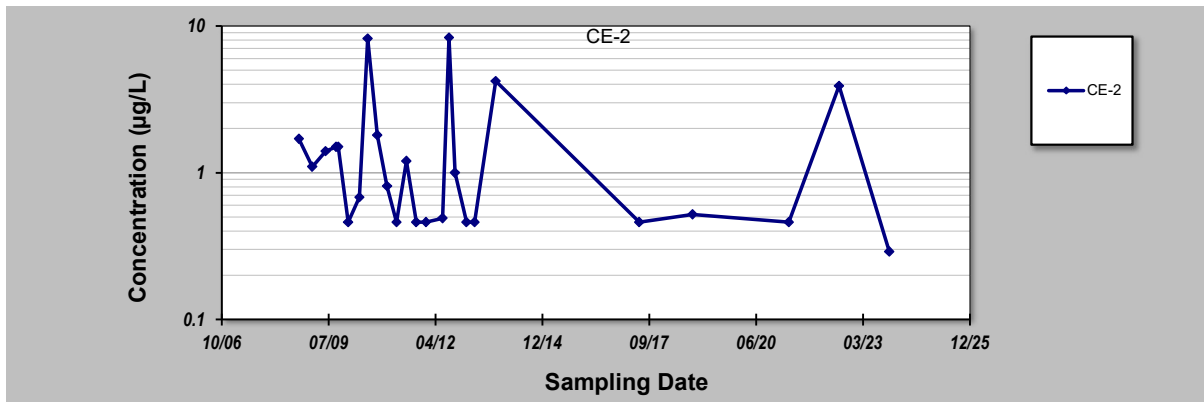
Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **TCE**
 Concentration Units: **µg/L**

Sampling Point ID: **CE-2**

Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)					
1	10/1/2008	1.7					
2	2/2/2009	1.1					
3	6/9/2009	1.4					
4	9/14/2009	1.5					
5	10/5/2009	1.5					
6	1/5/2010	0.46					
7	4/21/2010	0.68					
8	7/6/2010	8.2					
9	10/5/2010	1.8					
10	1/3/2011	0.81					
11	4/4/2011	0.46					
12	7/5/2011	1.2					
13	10/4/2011	0.46					
14	1/3/2012	0.46					
15	6/5/2012	0.49					
16	8/6/2012	8.3					
17	10/1/2012	1					
18	1/15/2013	0.46					
19	4/1/2013	0.46					
20	10/15/2013	4.2					
21	6/21/2017	0.46					
22	10/31/2018	0.52					
23	4/19/2021	0.46					
24	8/1/2022	3.9					
25	11/14/2023	0.29					
26							
27							
28							
29							
30							

Coefficient of Variation: **1.33**
 Mann-Kendall Statistic (S): **-95**
 Confidence Factor: **90.8%**
 Concentration Trend: **Prob. Decreasing**



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0); >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90% and S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Non-Detects are reported as the detection limit from the January 2020 laboratory analysis.

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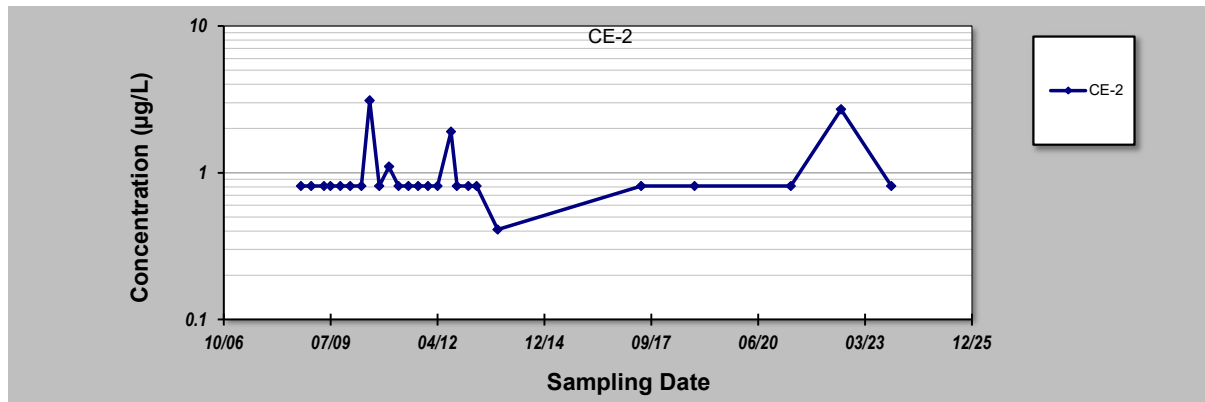
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **cis-1,2-DCE**
 Concentration Units: **µg/L**

Sampling Point ID: **CE-2**

Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)					
1	10/1/2008	0.81					
2	1/5/2009	0.81					
3	5/5/2009	0.81					
4	7/6/2009	0.81					
5	10/5/2009	0.81					
6	1/5/2010	0.81					
7	4/21/2010	0.81					
8	7/6/2010	3.1					
9	10/5/2010	0.81					
10	1/3/2011	1.1					
11	4/4/2011	0.81					
12	7/5/2011	0.81					
13	10/4/2011	0.81					
14	1/3/2012	0.81					
15	4/2/2012	0.81					
16	8/6/2012	1.9					
17	10/1/2012	0.81					
18	1/15/2013	0.81					
19	4/1/2013	0.81					
20	10/15/2013	0.41					
21	6/21/2017	0.81					
22	10/31/2018	0.81					
23	4/19/2021	0.81					
24	8/1/2022	2.7					
25	11/14/2023	0.81					
26							
27							
28							
29							
30							
Coefficient of Variation:		0.57					
Mann-Kendall Statistic (S):		-6					
Confidence Factor:		52.8%					
Concentration Trend:		Stable					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$ and $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Non-Detects are reported as the detection limit from the January 2020 laboratory analysis.

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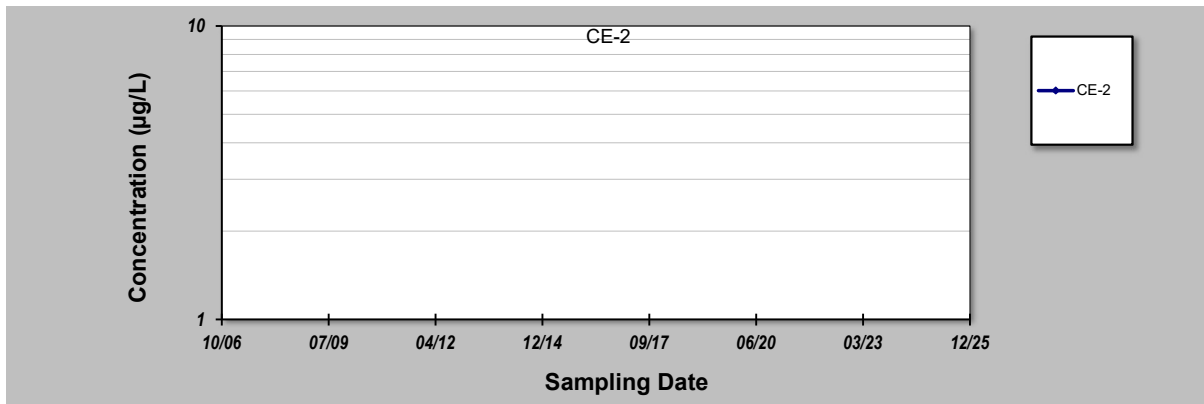
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: 22-Jan-24	Job ID: 3616206098
Facility Name: American Thermostat NYSDEC Site 420006	Constituent: Vinyl Chloride
Conducted By: Haley Plante/Flynn Dorn	Concentration Units: µg/L

Sampling Point ID: **CE-2**

Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATION (µg/L)					
1	10/1/2008	All ND-Stable					
2	1/5/2009						
3	5/5/2009						
4	7/6/2009						
5	10/5/2009						
6	1/5/2010						
7	4/21/2010						
8	7/6/2010						
9	10/5/2010						
10	1/3/2011						
11	4/4/2011						
12	7/5/2011						
13	10/4/2011						
14	1/3/2012						
15	4/2/2012						
16	7/3/2012						
17	10/1/2012						
18	1/15/2013						
19	4/1/2013						
20	10/15/2013						
21	6/21/2017						
22	10/31/2018						
23	4/19/2021						
24	8/1/2022						
25	11/14/2023						
26							
27							
28							
29							
30							

Coefficient of Variation:	
Mann-Kendall Statistic (S):	
Confidence Factor:	
Concentration Trend:	



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$ and $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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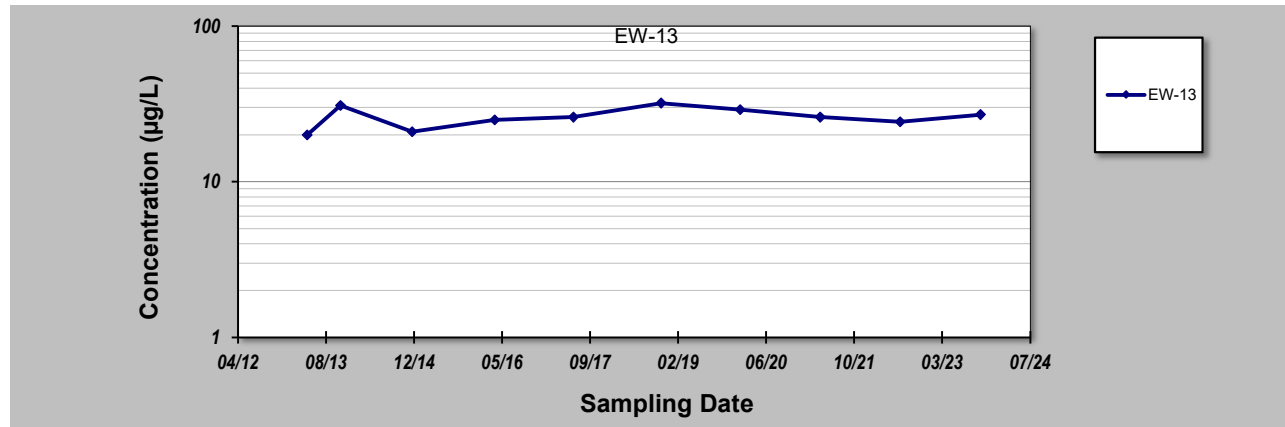
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **PCE**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **EW-13**

Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
1	4/29/2013	20						
2	11/5/2013	31						
3	12/17/2014	21						
4	3/29/2016	25						
5	6/20/2017	26						
6	10/30/2018	32						
7	1/22/2020	29						
8	4/21/2021	26						
9	7/19/2022	24.3						
10	10/17/2023	27						
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.15						
Mann-Kendall Statistic (S):		10						
Confidence Factor:		78.4%						
Concentration Trend:		No Trend						



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT

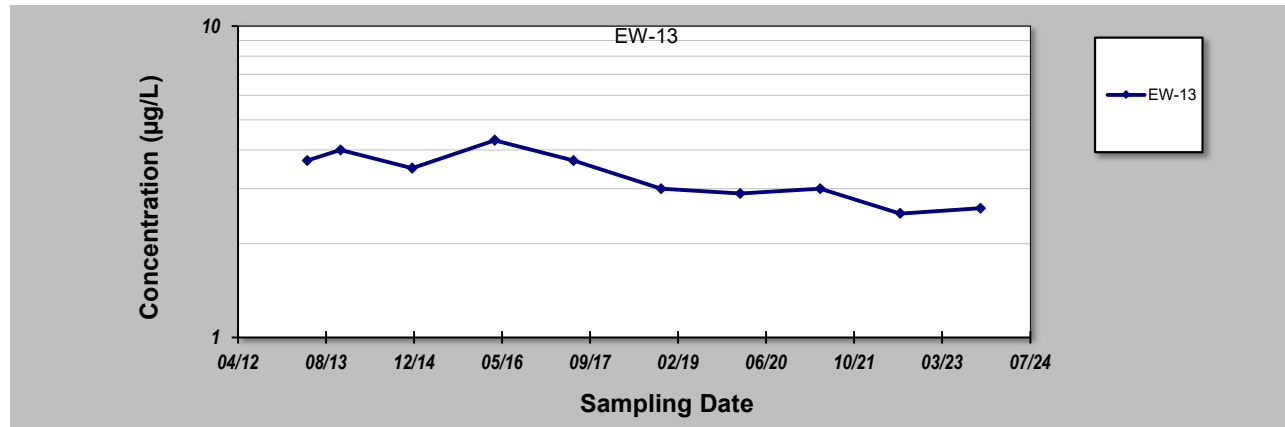
for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **TCE**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **EW-13**

Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)					
1	4/29/2013	3.7					
2	11/5/2013	4					
3	12/17/2014	3.5					
4	3/29/2016	4.3					
5	6/20/2017	3.7					
6	10/30/2018	3					
7	1/22/2020	2.9					
8	4/21/2021	3					
9	7/19/2022	2.5					
10	10/17/2023	2.6					
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Coefficient of Variation:	0.18						
Mann-Kendall Statistic (S):	-29						
Confidence Factor:	99.5%						
Concentration Trend:	Decreasing						



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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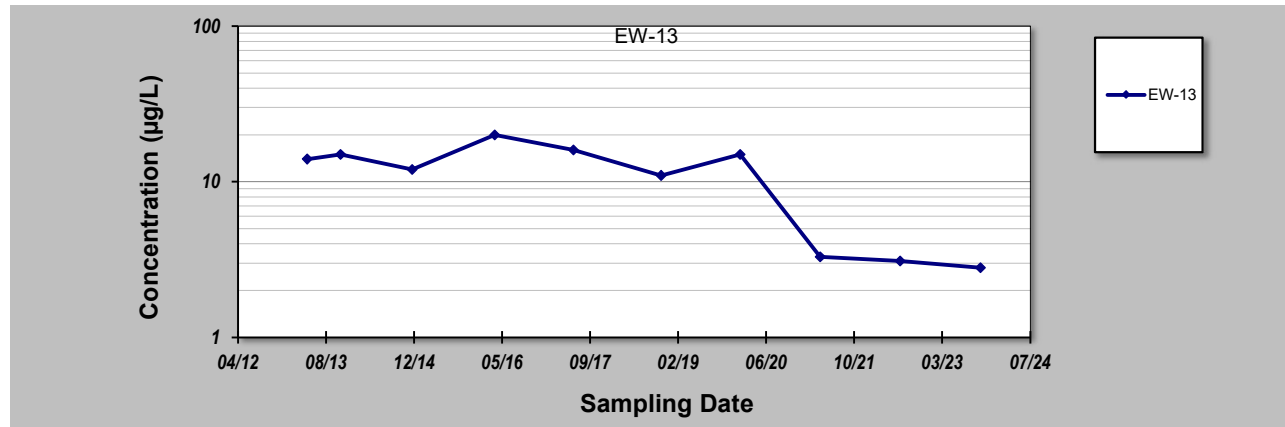
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **cis-1,2-DCE**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **EW-13**

Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)						
1	4/29/2013	14						
2	11/5/2013	15						
3	12/17/2014	12						
4	3/29/2016	20						
5	6/20/2017	16						
6	10/30/2018	11						
7	1/22/2020	15						
8	4/21/2021	3.3						
9	7/19/2022	3.1						
10	10/17/2023	2.8						
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.54						
Mann-Kendall Statistic (S):		-24						
Confidence Factor:		98.2%						
Concentration Trend:		Decreasing						



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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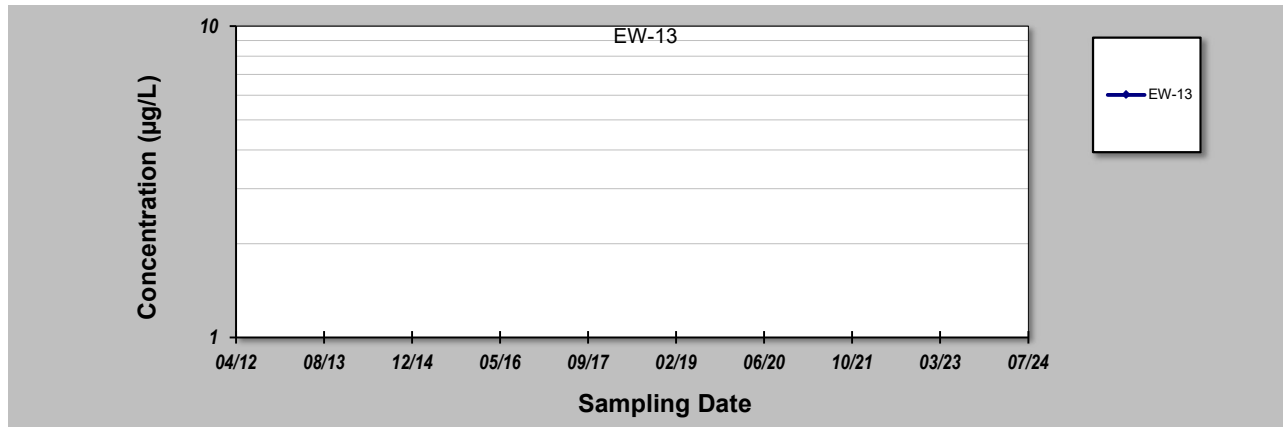
GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **22-Jan-24** Job ID: **3616206098**
 Facility Name: **American Thermostat NYSDEC Site 420006** Constituent: **Vinyl Chloride**
 Conducted By: **Haley Plante/Flynn Dorn** Concentration Units: **µg/L**

Sampling Point ID: **EW-13**

Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATION (µg/L)						
1	4/29/2013	Mostly ND- Stable						
2	11/5/2013							
3	12/17/2014							
4	3/29/2016							
5	6/20/2017							
6	10/30/2018							
7	1/22/2020							
8	4/21/2021							
9	7/19/2022							
10	10/17/2023							
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:								
Mann-Kendall Statistic (S):								
Confidence Factor:								
Concentration Trend:								



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Non-Detects are reported as the detection limit from the January 2020 laboratory analysis.

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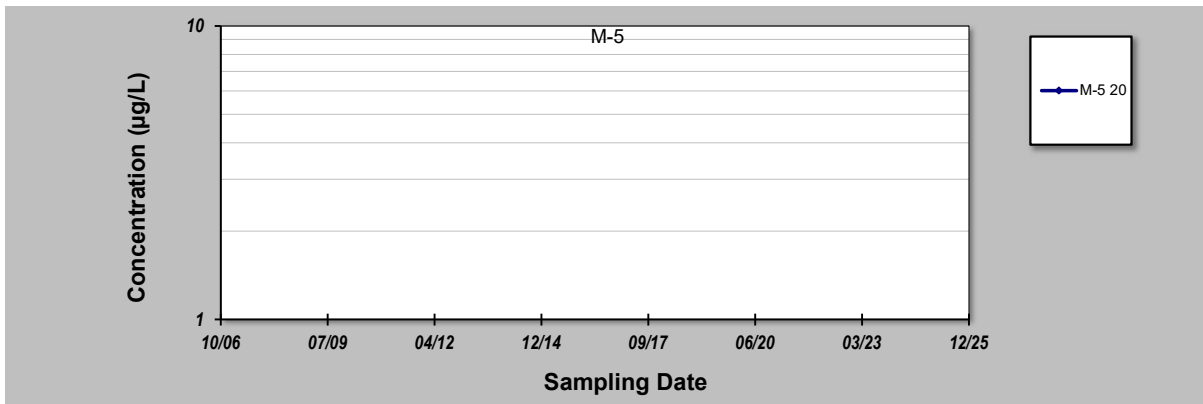
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: 22-Jan-24	Job ID: 3616206098
Facility Name: American Thermostat NYSDEC 420006	Constituent: PCE
Conducted By: Haley Plante/Flynn Dorn	Concentration Units: µg/L

Sampling Point ID: **M-5**

Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)					
1	10/6/2008	Mostly ND - Stable					
2	1/13/2009						
3	4/7/2009						
4	7/7/2009						
5	10/6/2009						
6	1/6/2010						
7	4/8/2010						
8	7/7/2010						
9	10/6/2010						
10	1/4/2011						
11	4/11/2011						
12	7/6/2011						
13	10/6/2011						
14	1/4/2012						
15	10/5/2012						
16	4/17/2013						
17	10/16/2013						
18	12/16/2014						
19	3/29/2016						
20	6/20/2017						
21	10/30/2018						
22	1/22/2020						
23	4/21/2021						
24	7/19/2022						
25	10/17/2023						
26							
27							
28							
29							
30							

Coefficient of Variation:	
Mann-Kendall Statistic (S):	
Confidence Factor:	
Concentration Trend:	



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Results show two historical detections, most recently in 2010.

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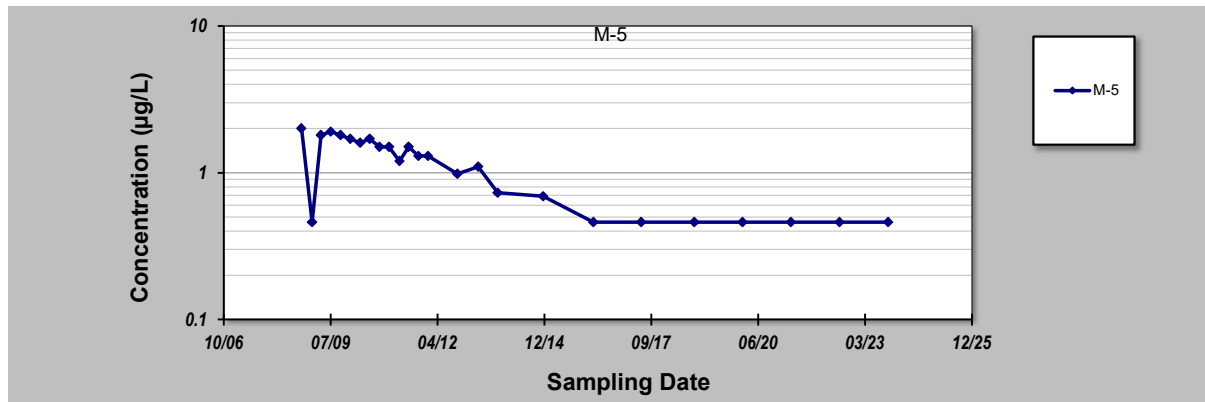
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **TCE**
 Concentration Units: **µg/L**

Sampling Point ID: **M-5**

Sampling Event	Sampling Date	TCE CONCENTRATION (µg/L)					
1	10/6/2008	2					
2	1/13/2009	0.46					
3	4/7/2009	1.8					
4	7/7/2009	1.9					
5	10/6/2009	1.8					
6	1/6/2010	1.7					
7	4/8/2010	1.6					
8	7/7/2010	1.7					
9	10/6/2010	1.5					
10	1/4/2011	1.5					
11	4/11/2011	1.2					
12	7/6/2011	1.5					
13	10/6/2011	1.3					
14	1/4/2012	1.3					
15	10/5/2012	0.98					
16	4/17/2013	1.1					
17	10/16/2013	0.73					
18	12/16/2014	0.69					
19	3/29/2016	0.46					
20	6/20/2017	0.46					
21	10/30/2018	0.46					
22	1/22/2020	0.46					
23	4/21/2021	0.46					
24	7/19/2022	0.46					
25	10/17/2023	0.46					
26							
27							
28							
29							
30							
Coefficient of Variation:		0.50					
Mann-Kendall Statistic (S):		-222					
Confidence Factor:		>99.9%					
Concentration Trend:		Decreasing					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$ and $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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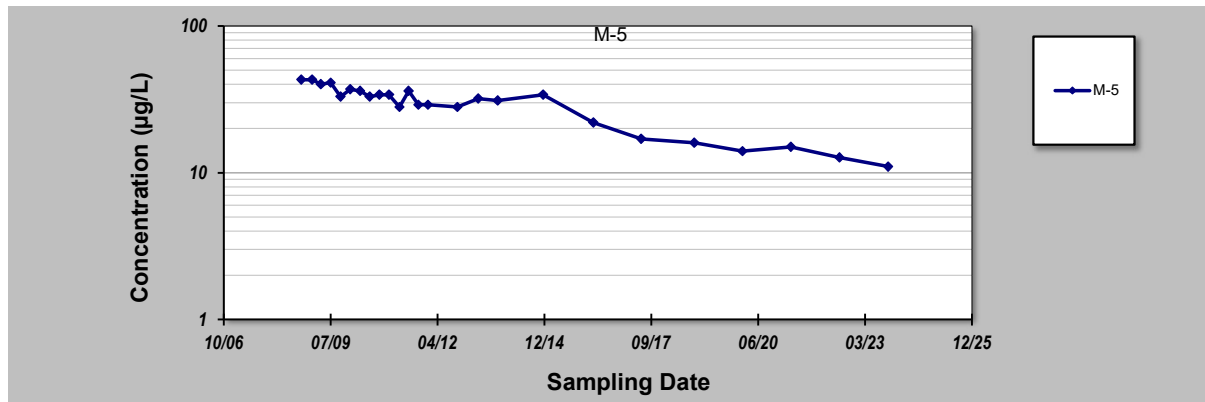
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **cis-1,2-DCE**
 Concentration Units: **µg/L**

Sampling Point ID: **M-5**

Sampling Event	Sampling Date	CIS-1,2-DCE CONCENTRATION (µg/L)					
1	10/6/2008	43					
2	1/13/2009	43					
3	4/7/2009	40					
4	7/7/2009	41					
5	10/6/2009	33					
6	1/6/2010	37					
7	4/8/2010	36					
8	7/7/2010	33					
9	10/6/2010	34					
10	1/4/2011	34					
11	4/11/2011	28					
12	7/6/2011	36					
13	10/6/2011	29					
14	1/4/2012	29					
15	10/5/2012	28					
16	4/17/2013	32					
17	10/16/2013	31					
18	12/16/2014	34					
19	3/29/2016	22					
20	6/20/2017	17					
21	10/30/2018	16					
22	1/22/2020	14					
23	4/21/2021	15					
24	7/19/2022	12.7					
25	10/17/2023	11					
26							
27							
28							
29							
30							
Coefficient of Variation:		0.34					
Mann-Kendall Statistic (S):		-230					
Confidence Factor:		>99.9%					
Concentration Trend:		Decreasing					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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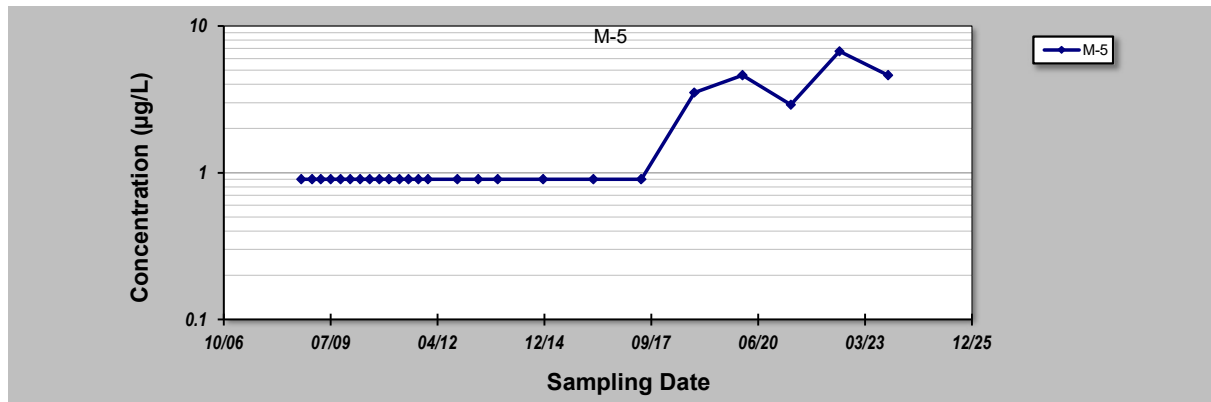
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **22-Jan-24**
 Facility Name: **American Thermostat NYSDEC Site 420006**
 Conducted By: **Haley Plante/Flynn Dorn**

Job ID: **3616206098**
 Constituent: **Vinyl Chloride**
 Concentration Units: **µg/L**

Sampling Point ID: **M-5**

Sampling Event	Sampling Date	VINYL CHLORIDE CONCENTRATION (µg/L)					
1	10/6/2008	0.9					
2	1/13/2009	0.9					
3	4/7/2009	0.9					
4	7/7/2009	0.9					
5	10/6/2009	0.9					
6	1/6/2010	0.9					
7	4/8/2010	0.9					
8	7/7/2010	0.9					
9	10/6/2010	0.9					
10	1/4/2011	0.9					
11	4/11/2011	0.9					
12	7/6/2011	0.9					
13	10/6/2011	0.9					
14	1/4/2012	0.9					
15	10/5/2012	0.9					
16	4/17/2013	0.9					
17	10/16/2013	0.9					
18	12/16/2014	0.9					
19	3/29/2016	0.9					
20	6/20/2017	0.9					
21	10/30/2018	3.5					
22	1/22/2020	4.6					
23	4/21/2021	2.9					
24	7/19/2022	6.7					
25	10/17/2023	4.6					
26							
27							
28							
29							
30							
Coefficient of Variation:		0.97					
Mann-Kendall Statistic (S):		103					
Confidence Factor:		99.2%					
Concentration Trend:		Increasing					



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\%$ = Increasing or Decreasing; $\geq 90\%$ = Probably Increasing or Probably Decreasing; $< 90\%$ and $S > 0$ = No Trend; $< 90\%$, $S \leq 0$, and $COV \geq 1$ = No Trend; $< 90\%$ and $COV < 1$ = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.
- Non-Detects are reported as the detection limit from the January 2020 laboratory analysis.

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APPENDIX G

COST CONTROL SUMMARY DOCUMENTS

2023 COST CONTROL SUMMARY TABLE

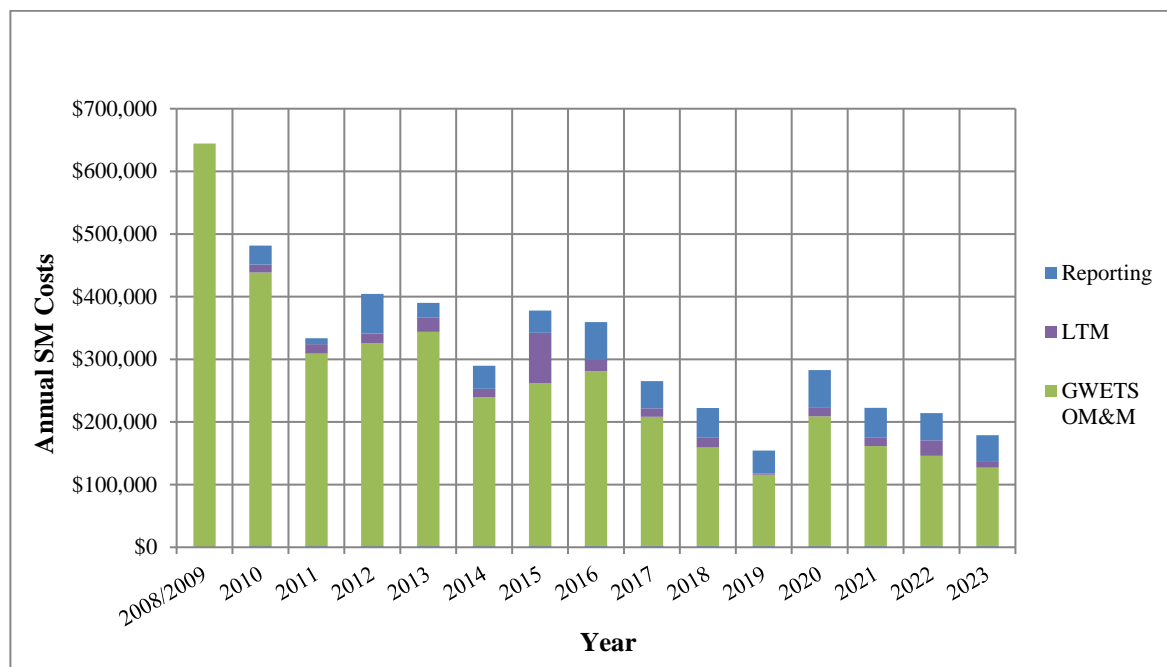
Task 1 (Preliminary Activities)	
Labor	\$0
Task 2 (Site Management Plan)	
Labor	\$0
Task 3 (Operation and Maintenance) ^(a)	
Labor	\$99,739
Lodging, Travel, and M&IE	\$3,384
Shipping	\$37
Internet	\$2,480
Plowing ^(b)	\$0
Supplies and Equipment	\$344
Subcontractors	\$0
Electricity	\$13,781
Propane	\$3,330
Water	\$337
Laboratory Services* ^(c)	\$1,472
	\$124,904
Task 4 (Monitoring and Reporting)	
Labor ^(d)	\$99,657
Lodging, Travel, and M&IE	\$986
Supplies and Equipment	\$777
Laboratory Services* ^(c)	\$1,471
	\$102,891
Task 5 (Periodic Review and Reporting)	
Labor	\$14,289
Task 6 (Sustainable and Resilient Remediation Implementation)	
Labor	\$48,340
Lodging, Travel, and M&IE	\$2,015
Supplies and Equipment	\$23
	\$50,378
Annual Total: \$292,462	

Notes:

- (a) Includes routine and non-routine OM&M and the following out-of-scope items: generating an electric account authorization letter, management of electric, propane, and water accounts, populating NYSDEC's Operational Technology Inventory spreadsheet, and generating a cost estimate for standby laboratory services.
- (b) As of 2023, plowing is no longer subcontracted and is performed by the NYSDEC.
- (c) Task 3 and Task 4 Laboratory Services costs were estimated using the total cost provided by the NYSDEC for 2023. Monthly treatment system performance samples represent Task 3 laboratory costs. October 2023 LTM samples represent Task 4 laboratory costs.
- (d) Labor costs included LTM; semiannual hydraulic monitoring; analytical data validation and management; compilation, review, and evaluation of monthly system performance data; monthly reporting and invoicing; extraction well optimization evaluation reporting; and the following out-of-scope items: generating a well details table for EQuIS, early treatment system shutdown assessment, Country Estates water supply well information and rough order of magnitude cost estimate requests from NYSDEC and USEPA, and NYSDEC callout laboratory scope review.

M&IE = Meals and incidental expenses

ANNUAL SITE MANAGEMENT COSTS 2008/2009-2023



Notes:

GWETS OM&M includes Country Estates (thru Q2 2013) and residential GAC system OM&M (thru 6/1/2022). After Q2 2013, OM&M of Country Estates treatment system(s) became owner's responsibility. OM&M of three residential GAC systems ceased after 6/1/2022.

2008/2009: Costs from 10/1/2008 through 12/31/2009.

2010: GWETS OM&M includes Country Estates & residential GAC system OM&M. Reporting includes preparation of 2008/2009 Periodic Review Report (PRR).

2011: GWETS OM&M includes Country Estates & residential GAC system OM&M.

2012: GWETS OM&M includes Country Estates & residential GAC system OM&M, preparation of detailed design drawings for GWETS improvements; Reporting includes preparation of SMP and 2010/2011 PRR.

2013: OM&M does not include preparation of detailed design drawings for GWETS improvements or implementation of RSO improvements. LTM includes conducting hydraulic effectiveness monitoring and EW-9 step test.

2014: OM&M does not include GWETS modifications; Reporting includes 2014 PRR, drafting SMP update.

2015: GWETS OM&M includes oversight/coordination of GWETS upgrades/modifications; LTM reflects quarterly residential POET system OM&M, extraction well decommissioning, EW-5 over drilling/MW conversion, EW-5 investigation derived waste disposal.

2016/2017: GWETS OM&M includes modifications, GWETS commissioning; Reporting includes PRR preparation, SMP updates.

2018: GWETS OM&M includes GWETS commissioning/optimization & monitoring well decommissioning inventory; Reporting includes annual report preparation, SMP updates.

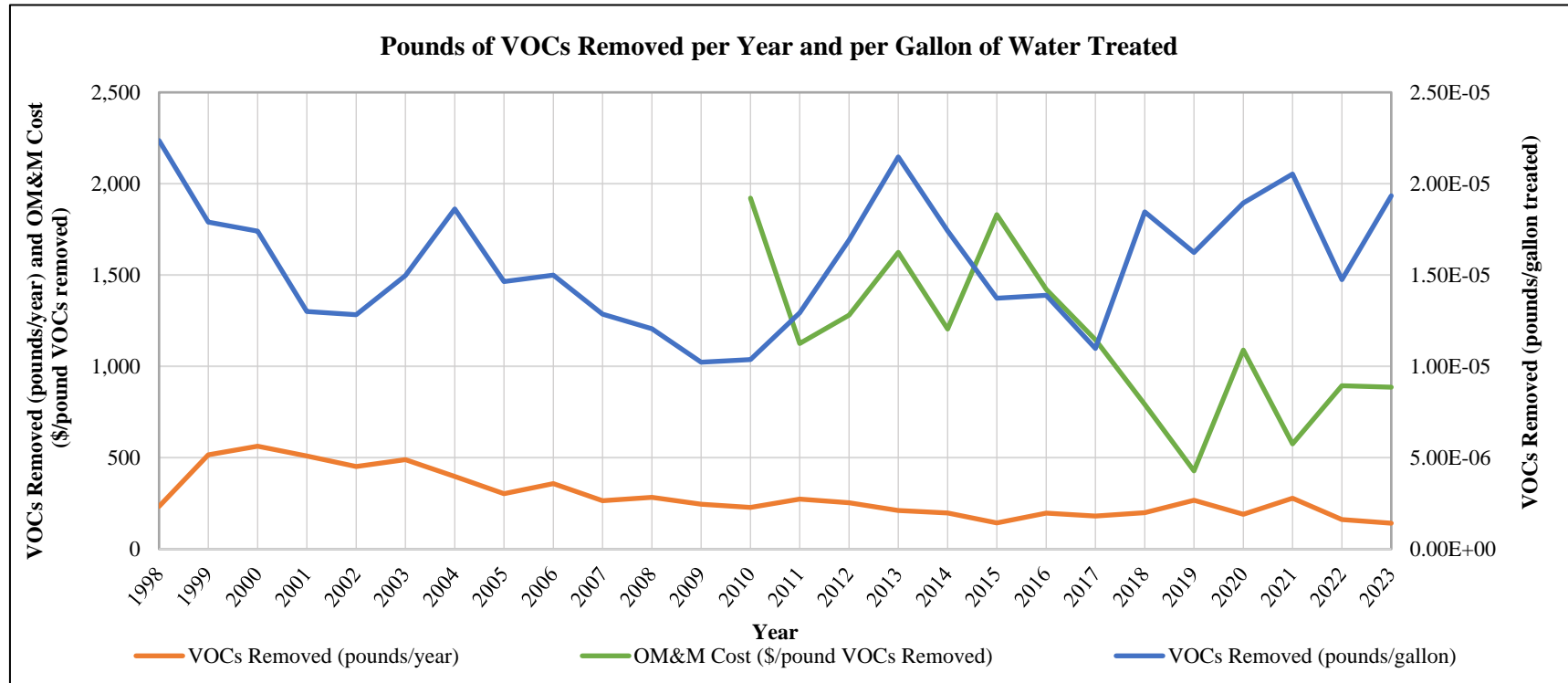
2019: GWETS OM&M includes regular inspections/maintenance; LTM reflects quarterly residential POET system OM&M, semiannual hydraulic monitoring; Reporting includes annual report preparation.

2020: GWETS OM&M includes routine/non-routine inspections/maintenance, replacement of two effluent discharge pumps, quarterly residential POET system OM&M; LTM reflects January/July 2020 groundwater monitoring/sampling events, semiannual hydraulic monitoring, October 2020 emerging contaminants sampling; Reporting includes 2019 Annual Report, initial 2020 PRR preparation, 2020 MPRs.

2021: GWETS OM&M includes routine/non-routine inspections/maintenance, quarterly residential POET system OM&M, well decommissioning event; LTM reflects April 2021 groundwater monitoring/sampling event, semiannual hydraulic monitoring; Reporting includes 2020 Periodic Review Report edits, 2021 MPRs, Field Activities Plans for Well Decommissioning and Extraction Well Optimization Evaluation, Well Decommissioning Field Activities Report, annual report preparation, data management/validation.

2022: GWETS OM&M includes routine/non-routine inspection/maintenance, waste disposal, residential POET system OM&M through June 1st, partial decommissioning of one residential POET system, OW-3, OW-7, OW-13, OW-16 pump replacements; LTM includes July 2022 groundwater monitoring/sampling event, semiannual hydraulic monitoring; Reporting includes 2021 Annual Report, MPRs, Extraction Well Optimization Evaluation Field Activities Report, updated Ground Source Heating and Solar Photovoltaic Evaluation, data management/validation.

2023: GWETS OM&M includes routine/non-routine inspection/maintenance; LTM includes October 2023 groundwater monitoring/sampling event, semiannual hydraulic monitoring; Reporting includes 2022 Annual Report, MPRs, Extraction Well Optimization Evaluation Field Activities Report, data management/validation.



	2008/2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
GWETS OM&M Cost	\$644,463	\$436,679	\$307,055	\$323,996	\$341,910	\$237,347	\$260,109	\$278,887	\$206,121	\$157,316	\$113,866	\$206,964	\$159,592	\$143,832	\$124,904
VOCs Removed (pounds/year)	527	227	273	253	211	197	142	196	180	199	267	190	277	161	141
\$/pound VOCs Removed	\$1,222	\$1,921	\$1,125	\$1,280	\$1,624	\$1,204	\$1,830	\$1,421	\$1,145	\$791	\$427	\$1,089	\$575	\$894	\$885